	-	WORD HANDLER		
11/4		Normally	During Inserting	
->		go forward a character(1)	end the INSERT	
<-	in a	go back a character(1)	backspace	
CTRL	В		start BOLD text Inserting	
CTRL	С	COPY a character(1,2,3)	INSERT the COPY	(1
CTRL	D	DELETE a character(1,2,3,)	Mildred Law No. 12 hold	(
CTRL	E	END the edit	END the edit	
CTRL	F	change page FORMAT(4)		
CTRL	G	GET lines from selected		(2
		document(4,7)		
CTRL	I	INSERT(2)		(3
CTRL	J	change JUSTIFICATION of a paragraph	change JUSTIFICATION for Inserting	(4
CTRL	K	change case of a character	change case for Inserting	
CTRL	L	a LINE	a half spaced 'carriage return'	
CTRL	N	NORMAL	start NORMAL (non-underlined, non-super,	
		(removes underline from a character)	non-bold) text Inserting	
CTRL	P	a PAGE	a forced end-of-page	
CTRL	Q	set or clear tab stop	set or clear tab stop	
CTRL	R	REPLACE (ie: global)(4,6)		(5
CTRL	S		start SUPERSCRIPTED text Inserting	(6
CTRL	T	TIL (ie: search)(4,5,6)		
CTRL	V	change VERTICAL spacing of paragraph	change VERTICAL spacing for Inserting	
CTRL	W	a WORD	an unbreakable blank	
CTRL	X	center a line		
CTRL	Υ	underline a character	start underlined text Inserting	(7

ESC makes the next character upper case ESC ESC is "tab".

requires a word or phrase

requires an original word or phrase, and a replacement

requires a document name and/or line numbers or ranges

requires entry of numbers and text to describe the page

to find the next occurrence

is used after

is used after to replace this occurrence

is used after to skip this occurrence

CTRL T

CTRL R

CTRL R

(1) - Usually followed by CTRL W . CTRL L , or CTRL P Also, DELETE and COPY may be combined

any time before -> or <-

(2) - Operation completed by (3) - Operation cancelled by <-

(4) - Uses additional string(s) ended by

CTRL CTRL R

CTRL G

RETURN

CTRL F

(5) - Preceeded by -> or <-

Additional controls after the operation:

CTRL T

CTRL R

RETURN

(7) - Selected document is on secondary drive

(if one is defined)

WORD HANDLER" COMMANDS

(entered as a "name" followed by RETURN)

INDEX - displays the "index" of all documents on the disk(a)

PRINT - prints pages of a specified

document(b,c)

USE DISK 2 - makes all operations use

drive 2(d)

USE DISK 1/2 makes drive 1 the "primary" drive and drive 2 the

"secondary"(d)

ERASE - erases a document from the disk(b)

RENAME - renames a document(b,e)

FILL-IN

BACKUP - makes a backup of a document giving the resulting copy a new name(b,e,f)

> - takes a "form" document and creates a new document, substituting keyboard entries for

fields of the form:

<word or words>(g)

- (a) all commands refer to primary drive unless otherwise noted
- (b) asks for old document name (Document names are up to 30 characters. Only characters before a 'semicolon' are significant.)
- (c) asks for page numbers and/or ranges of numbers, separated by commas
- (d) disks are referenced as numbers 1 thru 8. with #1 = Slot 6, drive 1, #2 = Slot 6, drive 2, #3 = Slot 5, drive 1
- (e) asks for a new document name to be created by the command
- (f) backup copy is stored on secondary drive
- (a) "form" document is retrieved from secondary drive (if one is defined)

etc.

The CHANGE PRINTER SELECTION sequence is triggered by pressing space while the Word Handler is "booting".



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INSTRUCTIONS FOR WORD HANDLER VERSION 4.0

The enclosed Word Handler disks are double sided. The labeled side of the disk contains the standard 40 and 66 column format as described in the Word Handler Manual and Tutorial. The other side of the disk contains the 80 column format and is to be used with the Apple IIe 80 column board, Videx and Videx compatible 80 column boards only.

When you first boot your Word Handler disk, you will be greeted with the following menu. (Not the one indicated on p. 5 of the Word Handler Tutorial).

PRINTER INTERFACE

STANDARD SERIAL - A
STANDARD PARALLEL - B
CCS ASIO - C
EPSON TYPE II - D
OTHER (REQUIRES HEX PARAMETERS) - X
(ENTER A-D OR X):

PRINTER SLOT

(ENTER SLOT #)

PRINTER TYPE

NO OVERPRINT, NO ESC CODES - A
OVERPRINT WITH BACKSPACE ONLY - B
SMITH CORONA TP-1 - C
EPSON MX-80 (100) GRAFTRAX - D
APPLE DMP, C.ITOH 8510, NEC 8023- E
OTHER (REQUIRES HEX PARAMETERS) - X
(ENTER A-Z OR X):

Printer Type A will work with just about any printer but will not generate any special effects (i.e. bold, underline, superscript, pitch changes).

Printer Type B will also work with just about any printer if you can manually turn off the auto line feed on the printer. This option will not, however, allow for superscripting, half spacing and changes in pitch.

Printer Type C-E will allow for all functions on corresponding printers. The Smith Corona TP-1 is not capable of superscripting and pitch changes.

Choosing Printer Interface type A through D and Printer Type A through E will allow you to proceed to the point where you may create a new document and bypass entering HEX parameters. If you do choose these types, you should ignore the next section (ENTERING HEX PARAMETERS FOR YOUR PRINTER AND INTERFACE CARD) and move on to the section titled ADDITIONAL FEATURES TO WORD HANDLER VERSION 4.0

ENTERING HEX PARAMETERS FOR YOUR PRINTER AND INTERFACE CARD

If you choose X as the printer interface or printer type, you will be asked to enter Hex Parameters. There are 25 Parameters (labeled A-Y) that you may enter. The first 2 parameters (PARaMeters A and B) are for the interface. PARaMeters C through Y are for the printer. After entering an X, you will be prompted to enter parameters one at a time. After entering a hex value, press RETURN and you will be prompted to enter the next value. You may backup with the left arrow key to correct errors, but once the value has been entered and you hit RETURN, you cannot go back to correct an error. If you should need to correct an error, press the RESET key to reboot the program and press the "space" bar when the flashing title page appears. Pressing the "space" bar at this point will always allow you to enter new parameters. You need only enter the parameters once as long as you are using the same printer and interface card.

The following information is technical and may require some intimate knowledge of your interface and printer. The appropriate hex values and strings for your printer and interface may be found in your printer and interface manual. (If you are unable to find the correct values, please write or call Customer Service at Silicon Valley Systems for assistance). Press a RETURN as a value to indicate that the PARAMeter is non-applicable.

Printer Interface

PARM A and PARM B are for the interface

When you hit return for A and B, the interface is initialized with CALL to CnOO and will be used as a normal Apple printer device.

If you hit RETURN for A and enter the string to intitialize the interface for PARM B, the interface is initialized in the same manner as in the first choice. but parameter B is used as a string which is sent to the interface only once.

When you enter PARaMeter A as non-null, then it must be entered as the actual machine language of a subroutine that sends characters to the printer. PARaMeter B would then be a subroutine that initializes the interface.

Printer Type

PARM C and PARM D control boldfacing

PARM E and PARM F control underlining

PARM G and PARM H control superscripting

PARaMeter	ENTER	or	ENTER	or	ENTER
C	STRING TO START BOI	TD (T	RETURN		RETURN*
D	and STRING TO END BOLD		and N (number o overstrike		and RETURN
E	STRING TO START UNI	ERLINE	RETURN		RETURN*
	and		and		and
F	STRING TO END UNDER		01 (by (RETURN
			ackspace)		
G	STRING TO START SUI	PERSCRIPT	RETURN*		
	and		and		
H	STRING TO END SUPER	RSCRIPT	RETURN		

PARM	I	PARaMeters I through L are not used
PARM	J	and are reserved for future development.
PARM	K	Enter values as null by pressing RETURN
PARM	L	

PARM M and PARM N control the characters per inch (pitch)

PARaMeter	ENTER	or	ENTER
M	STRING TO START 10 pitch		RETURN*
	and		and
N	STRING TO START 12 pitch		RETURN

PARaMeters O through X all go together and control the vertical spacing.

PARM O is the denominator of the fractions used in PARM Q through PARM X.

PARM P is non-null (any character) if the printer is not able to print a carriage return without paper spacing (line feed).

PARM Q through PARM X are a table of vertical spacing sizes and must be in descending size order. Each entry must contain 1 byte which gives the numerator fraction size. The remainder of each entry should be a string which generates that size paper feed. Leave all unused PARaMeters null (by hitting RETURN).

PARM Y is transmitted as end of form. This parameter is used with sheet feeders.

Entering a RETURN for both values sends nothing to the printer.

PARM C

PARM D

PARM V

PARM W

PARM X

PARM Y

NULL

NULL

NULL

1B 1E 09

NULL

The following is an example of the parameters entered for a DIABLO 630 printer

```
04
                             (number of overstrikes)
PARM E
        NULL
PARM F
                             (to underline by backspacing)
PARM G
        1B 1E 07 1B 44
                             (string that begins superscripting)
PARM H
        1B 55
                             (string that ends superscripting)
PARM I
        NULL
PARM J
        NULL
PARM K
        NULL
PARM L
        NULL
PARM M
         1B 1F OD
                             (string to start 10 pitch)
PARM N
        1B 1F OB
                             (string to start 12 pitch)
PARM O
        30
                             (30 (hex) is 48 (48ths of an inch) decimal.)
PARM P
        \infty
                             (Diablo can get carriage returns without line feed)
                             ('04' designates 4/48ths, '1B, 1E, 05' is the string to set the vertical motion index (vmi) to 4/48ths
PARM Q
        O4 1B 1E O5 OA
                             and 'OA'sends a line feed).
PARM R
                             ('03' designates 3/48ths, '1B, 1E, 04' sets the vmi
        03 1B 1E 04 0A
                             to 3/48ths).
PARM S
                             ('01' designates 1/48th, '1B, 1E, 02' sets the vmi
        01 1B 1E 02 0A
                             to 1/48th).
PARM T
        NULL
PARM U
        NULL
```

(resets the printer to 6 lines per inch).

ADDITIONAL FEATURES TO WORD HANDLER VERSION 4.0 (BOTH 40/66 AND 80 COLUMN FORMAT)

Multiple page printing

To print multiple copies, enter a pound sign (#), the number of copies you wish to print, a comma and then the pages to be printed. For example, there is a 7 page document named "LETTER". To print 5 copies of page 1, 3 copies of page 2 and 2 copies of pages 3 through 7, you would enter the page numbers in the following way:

Document name: LETTER

pages: #5,1,#3,2,#2,3-7

Continuous printing

When the prompt "position paper and press 'space' or 'C'" appears on the screen, press C to print continuous pages. "C" should be pressed only if you are using continuous feed (fanfold) paper.

SPECIAL FUNCTIONS OF THE 80 COLUMN VERSION

One of the unique features of the Word Handler has always been the ability to underline, boldface and superscript. These capabilities have been retained in the 80 column version. The special functions of bold, underline and superscript now appear on the screen in inverse video instead of as they will appear in print. (reference pages 38-39 of the Word Handler Tutorial).

As you insert text in bold, underline or superscript, the mode(s) in which you are inserting will be indicated at the bottom of the screen. When editing, the mode in which the character(s) were entered will be indicated at the bottom of the screen whenever the cursor is over text that appears in inverse.

Page breaks are indicated on the screen by:

The	vertical	spacing	is	now	indicated	as:	
	e 1/2 .						

- + for 1/2 spacing 1 for single spacing
- 1+ for 1 1/2 spacing
- 2 for double spacing 2+ for 2 1/2 spacing

(reference pages 42-43 of the Word Handler Tutorial).

The index remains on the screen while using PRINT, ERASE, RENAME, BACKUP or FILL-IN.

SPECIAL NOTE ON THE 80 COLUMN FORMAT

The default values of the FORMAT (reference page 52 of the <u>Word Handler Tutorial</u>) are set up for 8 1/2 " X 11" paper with approximately 1" margins printed at 10 pitch. This is the standard format used for most correspondence and allows for 66 columns of text on the screen and in print.

To obtain 80 columns of text on the screen, do one of three things:

- 1. Increase the default value of the pitch from 10 to 12 and set the right and left margins to 1.0.
- Decrease the default value of the right and left margins to 0.4 and 0.3, respectively.
- 3. Increase the default value of the page width to 9.7.

For Apple IIe users:

The up and down arrow keys on the IIe operate in the same manner as CTRL L does in the edit mode.

↑ = ← , CTRL L (backward by line)

The CTRL, Open Apple or Closed Apple keys may be used for almost all ConTRoL functions. The Apple keys, however, must be used with the following functions:

On Apple IIe use:	for:	instead of:
<apple> <j> <apple> <k> <apple> <i></i></apple></k></apple></j></apple>	Justify Case change Insert	<ctrl> <j> <ctrl> <k> <ctrl> <i></i></ctrl></k></ctrl></j></ctrl>

(the ESC key may also be used to Insert.)

The TAB key is used instead of the ESC for tabbing.

Apple is a registered trademark of APPLE COMPUTER, INC. Videx is a registered trademark of THE VIDEX CORPORATION.



Congratulations,

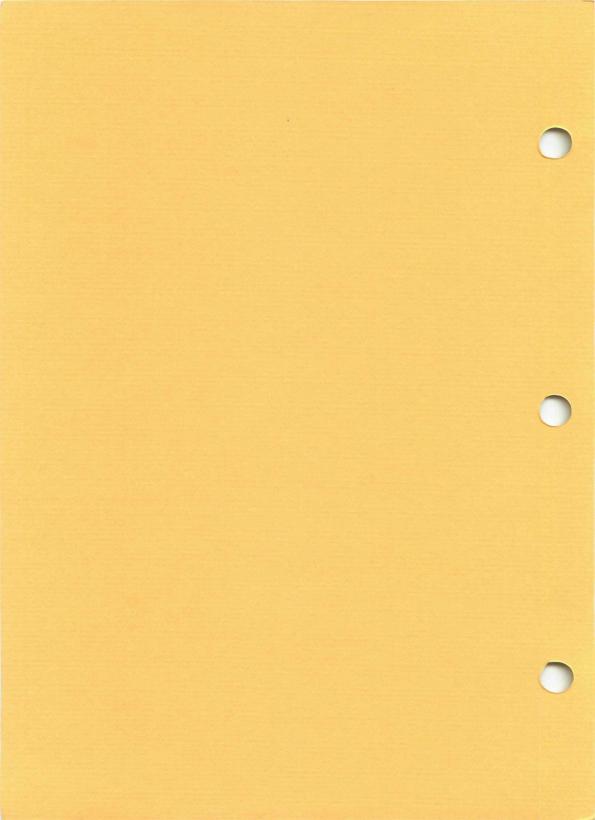
You are now the proud owner of WORD HANDLER, the versatile and friendly word processing program.

We have provided you with both an easy-to-understand WORD HANDLER manual and a simply-written WORD HANDLER tutorial.

Use the manual for quickly assimilating the program —learning to use the directions and understanding WORD HANDLER's breadth of capabilities. The manual will have you operating WORD HANDLER like a pro in twenty minutes.

If you should need more assistance or want a more advanced knowledge of WORD HANDLER's capabilities, read the tutorial. You'll be led through a fascinating combination of text-editing situations to see "first-hand" the flexibility and control of the WORD HANDLER program.

Whichever you use—the manual, tutorial, or both—you will discover a comprehensive yet simple world of word processing through the WORD HANDLER.



THE WORD HANDLER TUTORIAL

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PART I — Section A — SETTING UP

Welcome to the Word Handler Tutorial. Whether or not you have ever worked with word processing equipment before, you will probably find the Word Handler to be surprisingly powerful and easy to use. The one thing you will need to do to master the Word Handler quickly, in fact, is to use it.

In this respect the *Word Handler* is no different from any other program or piece of equipment. So if your Apple is not at hand and ready for action, you should stop now and get it out, set it up and plug it in.

In the course of getting things set up, you may have run across some questions. Just to make sure you are completely set, let's review a few points about the "hardware" that you should be aware of.

The Word Handler will work on any Apple II with 48 k memory and a revision 3.3 disk system. If your Apple has a 3.2 disk system or less than 48 k of memory, you will need to see your Apple dealer about the relatively modest upgrade your system will need.

Some Apples have special keyboard encoder cards which enable them to type in upper and lower case (the standard Apple cannot). While the *Word Handler* works with these cards, they are *not* necessary. Shifting can be done via the ESCape key on an unmodified Apple; or, you can make your shift key work by adding one wire to your computer. See Appendix A for detailed instructions.

If your copy of the *Word Handler* program disk has never been used with the particular Apple and printer you are now working with, you will need to know what kind of printer you have and where in the Apple it is plugged in (see next section, "Starting Up"). Different printers require different codes to perform different functions, and furthermore can be either "parallel" or "serial." This last distinction refers to how the computer sends data to the printer. Once you have given your computer the necessary information, you needn't concern yourself with these distinctions any further. Moreover, the information is recorded on the program disk the first time you enter it, and doesn't need to be re-entered unless you change printers or move your printer to a different slot.

Finally, if you have never worked with floppy disks before, it would be well to stop now and consult pages five through seven of the Apple II DOS Manual, which came with your disk drive. These pages contain vital information on "Care of the Disk II and Diskettes" and "Inserting and Removing Diskettes." Since a disk may at some point contain hours, days or months of work, it is impossible to over-stress the importance of proper disk handling and care.

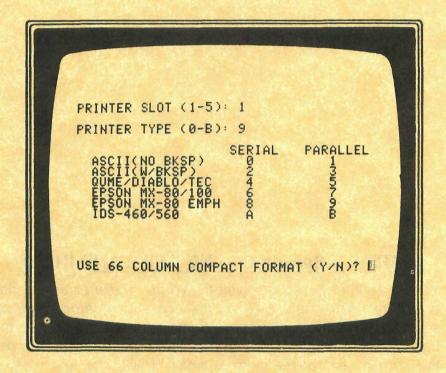
Incidentally, don't worry about the distinction between a "disk," a "diskette" and a "floppy"—there is none, as far as we're concerned. Likewise, a "document" and a "file" are synonymous for the purposes of this tutorial.

PART I — Section B — GETTING STARTED

If your Apple has more than one disk drive, place the *Word Handler* program diskette into the drive from which you normally boot your Apple. In almost all cases this will be the drive connected to Slot 6, Position #1. Make sure that label on the diskette is face up and on the edge nearest the face of the drive. Close the drive door and turn on the power.

If your Apple is equipped with the "Autostart ROM," which most recent Apples have, the disk drive will immediately start whirring away, loading the *Word Handler* program into memory. If your Apple has the "Old Monitor ROM" it will be necessary for you to boot up the disk by typing "IN#6" next to the BASIC prompt symbol and pressing the Return key.

If the copy of the *Word Handler* program has never been used with the particular Apple and printer that you are presently working with, press the space bar *while the disk is booting*. If this is done the *Word Handler* will ask you which slot the printer is connected to (usually #1) and what type of printer it is. Once this information is entered it is stored on the disk, so next time you boot it won't be necessary to enter it again.



You'll also be asked whether or not you want the 66-column compact format. Type "Y" if your desired line length is between 40 and 66 spaces and you wish to see each printed line as one line on the screen. This is the ideal format tor most work on 8-1/2" x 11" paper. Type "N" if your desired line length is less than 40 or greater than 66 spaces. In the latter case, each printed line will be broken up into two or three segments of 40 characters each. Although

each printed line will now occupy as many as three lines on the screen, the letters on the screen will be somewhat wider and easier to read. Use of the compact or non-compact format, it must be stressed, has absolutely *no* effect on the printer output. It also has no effect on how a document is stored; i.e., you can create a document with the non-compact format in effect, then reboot and review the document in the compact format.

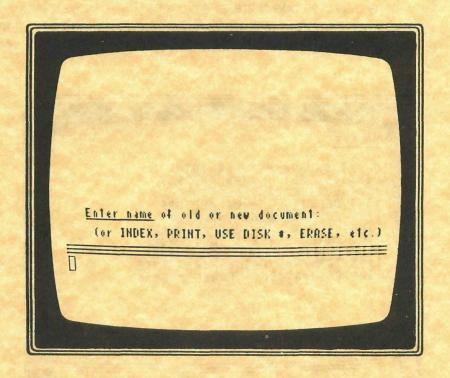
PART I — Section C — NEW FILE AND INDEX

As soon as you have given the Word Handler all the needed printer information and selected the compact or large character screen format, the system will go into its "idle" state. Near the bottom of the screen you should see three lines extending across the screen, and below them a small blinking rectangle called the cursor.

The cursor is the means by which you keep track of where on the screen you are presently working; you will find it an extremely useful tool when you actually begin editing.

Directly above the three lines will appear the following message:

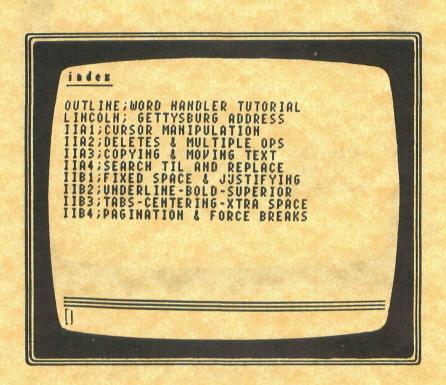
Enter name of old or new document: (or INDEX, PRINT, USE DISK#, ERASE, ETC.)



If you were to try to start typing now, you'd discover that you can't get very far — about three fourths of the way across the screen, and all of that in caps. Relax —nothing is broken. Before you can begin typing, you need to tell the Word Handler the name of the document you want to work on. Remember, for all the computer knows, you might be wanting to add text to a document already on the disk, or edit it, or print it. So, if you want to make a new document, you must give it a unique name to distinguish it from documents which already exist on the disk.

You can erase what you have typed by pressing the left arrow key repeatedly until the cursor is back at the left side of the screen. You could also do this with a little less wear on your fingers by holding down the left arrow key and then pressing the repeat key until all the unwanted typing is gone.

There probably aren't a lot of documents on your disk yet; in fact, there may be none there at all. Eventually however, you may have many files on the disk which have been entered over a long period of time. At some future point you'll want to refresh your



memory as to just what's on the disk. With the Word Handler still in its "idle" state, you can get an index of the diskette simply by typing INDEX and hitting return. In fact, there's an even faster way: hit return without typing anything. Try it both ways and see what happens.

If your disk has more than ten documents on it, which probably isn't the case yet, you'll only see the name of the first ten when you first call for an INDEX. To continue through the index, hit the space bar.

You'll note that the *Word Handler* program itself does not show up in the index. Only files actually created by the *Word Handler* program appear; other DOS files do not. Although the *Word Handler* does not display the names of other files in its index, it doesn't write over them either. Nevertheless, it is a good idea to do your word processing on diskettes especially reserved for this purpose.

```
IIA4; SEARCH TIL AND REPLACE
IIB1; FIXED SPACE & JUSTIFYING
IIB2; UNDERLINE-BOLD-SUPERIOR
IIB3; TABS-CENTERING-XTRA SPACE
IIB4; PAGINATION & FORCE BREAKS
SHIFT; KEYBOARD MODIFICATION
MESSED UP LINCOLN
IIC1; PRINTING
IIC2; FILE MANAGEMENT
17K & ree

Enter name of old or new document:

(or INDEX, PRINT, USE DISK *, ERASE, etc.)
```

At the bottom of your index you will see a number followed by the letter "K" and the word free. This tells you how much space is left on the disk — one "K" or kilobyte equals a thousand text characters. A newly initialized Apple II disk has a capacity of about 123K, depending on the size of the "Hello" program. For information about initializing a disk, refer to pages 13-14 and 44-45 of the Apple II DOS Manual.

If the number of "k free" gets low, you will need to either delete some material off this disk or switch to another disk before creating a new document. The same precaution should be taken before adding extensively to existing documents. The procedure for erasing documents from the disk will be discussed in a later section. The Word Handler program disk does not have to be in the disk drive once the program has been loaded. Any initialized diskette will do. However, the Word Handler must be in its idle state when disks are being changed; if it is not, you may end up losing not only the text that was in the computer when you changed the disk, but also the previous contents of the disk you put in.

Once the INDEX is on the screen, by the way, the Word Handler is in its "idle" state again. It is not necessary to take any action to remove the index, and it will go away when you proceed with another function.

Once you begin to enter and revise documents you will be leaving the idle state and going into the editing mode. You can return to the idle state at any time by holding down the key marked CTRL (for ConTRoL) while typing an "e" (for "end of editing"). This causes the document then on the screen to be stored on the disk, replacing any previous version.

It's a good practice, to prevent text from being lost due to power failure, tampering or other mishap, to store your work periodically when typing very long documents — and in any case when you are leaving the machine untended.

So, let's begin a new document. First decide what you want to call it and type the name in. You'll notice that everything you type at this point comes out in caps. A document name can contain up to 30 characters, as long as you don't try to call your document "INDEX," "PRINT," "USE DISK #," "ERASE," "RENAME," "BACKUP" or "FILL-IN." Any of these would be treated as a command for the Word Handler to perform some special function, rather than as a possible document name.

In naming your documents you will probably find it useful to describe them as specifically as possible; that way your index will give you a clear picture of what your documents contain. On the other hand, it would be rather a nuisance to have to type in 30 characters each time you wanted to call a document to the screen.

You can solve this dilemma by including a semicolon in the name of your document. While the entire name of the document will appear in the index (and at the bottom of the screen during editing), you only have to type the letters before the semicolon in order to call the file.

For example, let's create a new document called "NEW; THIS IS A TEST." Type that in (minus the quote marks) and hit return.

If there was already a file on the disk called "NEW;" followed by anything or just plain "NEW", that file would be read onto the screen now. Since, we presume, there is no file with this name already — you can confirm this by doing an index —the *Word Handler* will respond with the message, "NAME NOT FOUND ON DISK. PRESS SPACE TO CREATE A NEW DOCUMENT WITH THIS NAME OR ANY OTHER KEY TO BEGIN AGAIN." If you really wanted to call up an old document but had typed the name incorrectly, you would now have another chance. Since you do want to create a new document at this time, type a space to continue.

At this point you are leaving the idle mode and entering the world of editing. The screen now looks different: your new file name appears *below* the three lines, along with the word "page" and the number 1, and the cursor is much closer to the top of the screen.

You're almost ready to begin typing, but there's one more thing you have to do first. Hold down the CoNTRoL key and type the letter "I." This puts you in the text insertion mode, which you'll learn more about later.

For now, however, just type a few lines of anything that comes to mind. Don't worry if you make mistakes; you'll learn how to fix errors later. In fact, if the shift key on your Apple has not been enabled (see Appendix A), don't even worry about capitalization for now.

When you're finished typing, hit the right arrow key to end the insertion and then return to the idle mode by typing CoNTRoL-E. The disk drive will whir for a few seconds, indicating that your new document is being written to the disk.

Now press return to get an index. Again the disk will whir, and presently the full name of the document ("NEW; THIS IS A TEST") will appear. Now type "NEW" and press return again. Your document will be back on the screen.

Can you create a new document called "PRINTX"? Try it.

PART I—Section D—BASIC TYPING AND EDITING

In the last section, "Creating and Retrieving a Document," we sallied briefly into the text editing (and insertion) environment, quickly returned to the idle state and then, by calling our file "NEW" back to the screen, entered the editing world once again. Now we are going to take a much closer look at text editing and insertion.

It's natural to assume, at first glance, that insertion of text applies principally to new documents and that editing applies principally if not exclusively to old documents. In fact, insertion is a major tool in document revision, and being able to insert text without having to edit it along the way is something only a perfect typist working from a clear manuscript can achieve. The ease of making changes while writing is the reason why good word processors like the *Word Handler* are becoming essential tools of the trade for authors and other professionals who write.

When you leave the idle state and enter the editing world by calling up a document, you will see three lines across the bottom of the screen, the name of the documents under those lines at the left side, a page number indicator near the right side. At the top of the screen you'll see a mark resembling a backwards "L," the text you typed previously (if any) and, if there is text, a short line underneath it in the center of the screen.

Since you have not yet done anything after calling up the document, you are in editing (as opposed to inserting) mode. Right now, if you were to type something, you would be striking over letters already on the screen and replacing them with the new ones you typed.

If you tried this, (and you really should try everything), you may have noticed something strange happening when you typed a character over a space or a space over a character: The text on the screen vanished and then came back, one line at a time from the top.

This phenomenon is normal, but fortunately will not be encountered often when using the *Word Handler*. Soon you will learn how to use the deletion and insertion features to make changes to existing text without striking over.

Now, press the Right Arrow key, hold it down and watch the cursor move toward the last character you typed earlier. When it gets there, try typing a few more words.

Sounds like somebody slipped in one of those space combat games, doesn't it?

What's happening is that you have attempted to strike over characters that do not yet exist. The sound effects will warn you whenever you ask the program to do something it can't do. Hit the right arrow key and observe that you cannot move the cursor over text that does not exist yet any more than you can type over it. Now hit the left arrow key and observe that it moves the cursor back over the text without changing anything on the screen.

Now let's add some new copy to the document. As before, we do this by holding down the CoNTRoL key and striking the letter "I" (CoNTRoL-I"). Since the Apple-II does not have special purpose

keys for functions like insertion, deletion, etc., we often use the CoNTRoL key to enable one of the other keys to do double duty as a function key. As you will see, most of these keys are letters which stand for the function names, like "I" for "insertion."

A handy little card which summarizes the important CoNTRoL functions came with your *Word Handler* program; you'll probably want to pin it up near your computer for fast reference. Whenever you see a reference to typing CoNTRoL-(some letter), remember that you must *hold the CoNTRoL key down* while typing the other key.

As soon as you hit CoNTRoL-I the short line in the center of the screen will disappear. Any text under or after the cursor at the moment you hit CoNTRoL-I will also vanish. Don't worry, though; it is still in the memory of the computer but has been moved out of the way to give you room to type in more copy. You should do so now.

Up until now we haven't been worrying much about spelling, punctuation and the like, but let's suppose that you have just typed "cat" when you meant to type "car." Hit the left arrow key and observe what happens to the "t." The left arrow key has a different function during insertion than it does during editing. In both insertion and editing it moves the cursor back, but in the insertion mode it also deletes the character(s) it is moving back on.

Now see what happens when you hit the right arrow key. The text and the centered short line at the bottom which disappeared when you started inserting have now returned to the screen. You've left the insertion mode, haven't you? Try typing some more text to make sure.

The right arrow key, we discovered earlier, moves the cursor to the right over existing copy when struck during the editing mode. When struck during the insertion mode, we now know, it ends the insertion and returns you to the editing mode.

When you think about it, it wouldn't make sense to move the cursor forward in the insertion mode, since there is no text in front of it at the time. In this situation, you should think of the right arrow key as being used to "move ahead" to another function, rather than to move the cursor.

Much faster cursor movement is also possible. In a later section, you will perform dazzling acrobatics with the cursor, leaping effortlessly over words, lines and pages. But first let's input more text and learn how typing on the *Word Handler* is different from a typewriter.

First of all, there is the question of shifting. If the Apple has not been modified, hitting the ESCape key will make the next letter a capital. The character after that will automatically be lower case, unless you hit ESCape again. The numbers and some of the punctuation keys do have shift positions on the original Apple; i.e., shifted "6" gives an "&," etc. To get these shifted characters, you still have to use the shift key. The ESCape key gives you a shift only where Apple did not already provide a shifted position, i.e., on the letters.

On the other hand, if your Apple has undergone the single wire shift key modification, as described in Appendix A, you can use the shift key just like on a typewriter. This will work the same for all keys.

In either case, unless you have installed one of the elaborate and expensive keyboard encoder cards, there is no shift lock on the keyboard.

The Word Handler has provided for a shift lock in the insert mode by means of the CoNTRoL-K. When CoNTRoL-K is in effect, the word "Cap" appears on the lower right corner of the screen. To turn the shift lock off, hit CoNTRoL-K again. The word "Cap" will disappear and you will again find yourself typing in lower case. Note that the only way to turn shift lock on or off is by hitting CoNTRoL-K again; hitting the shift or escape key will have no effect.

CoNTRoL-K also has a function in the editing mode. Go into the editing mode, place the cursor on a lower case letter, and hit CoNTRoL-K. What happened? Does it say "Cap" in the lower right corner of the screen? Try typing a few letters without using the shift or escape keys. Are they in caps?

Now put the cursor on an upper case letter (possibly the letter you just made upper case) and hit CoNTRoL-K again. Move the cursor before mixed assortment of upper and lower case characters, press CoNTRoL-K-REPeaT and watch what happens.

You can see that CoNTRoL-K serves as a change case function in the editing mode – very handy if you typed a paragraph in small letters and decide to make it all caps. Now, having read how the escape key functions as a shift in an unmodified Apple, you might wonder what CoNTRoL-K will do to a number. Supposing you typed CoNTRoL-K JANUARY 1983 WILL BE A COLD MONTH CoNTRoL-K in the insertion mode. Did the 1983 come out as !)(# or as 1983? Go into editing mode and run CoNTRoL-K-REPT across that line, then back up and do it again. Did anything happen to the numbers?

There's another big difference between a typewriter and the Word Handler, and you probably noticed it already when you began typing. If you type more characters than will fit on a line, you don't need to hit a return at the end of a line. The Word Handler will automatically break the line after the last word that fits. This feature is known as "word wrap."

Word wrap is extremely handy for two reasons. In the first place, you don't have to slow down near the end of the line and look for a place to hit return. More importantly, if you subsequently add or subtract text from the line, the *Word Handler* will automatically rebreak that line and all following affected lines up to the next return. The same is true if you change the margins, which we'll learn how to do in Part III. Therefore, returns should only be used when the line must end at that point no matter what — which usually means the end of a paragraph, or after each line of a list.

When you end a line with a return, you'll see a symbol resembling a backwards "L" with a number inside it at the beginning of the next line. The presence of this symbol is an indication that you ended the previous line with a return and therefore that the line it is on will always be a new line, no matter what changes are made in the text above. The number inside is the line spacing currently in effect and will be a "1" for single spacing unless you change it.

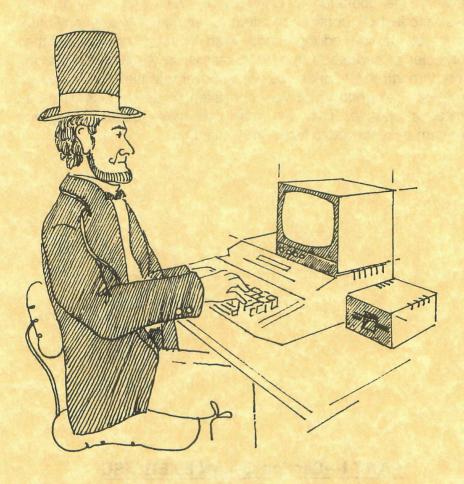
To change the vertical spacing when in the insert mode, get to the beginning of a new line and hit CoNTRoL-V. What is the spacing now? Now hit CoNTRoL-V again, and again. What happens? The change you make in vertical spacing while in insert mode will stay in effect until you change it again. Try typing a few paragraphs at various vertical spacings. Now go back into editing mode and put the cursor at the beginning of the first line of the first paragraph. Hit CoNTRoL-V. Were the other paragraphs changed?

At this point it might be helpful to consider a certain parallel between the operation of CoNTRoL-K and CoNTRoL-V. In the insert mode, both continue to affect subsequently typed copy until cancelled. In the editing mode, both of them only affect the character or paragraph that the cursor is on. As you continue to work through this tutorial, you will discover that the *Word Handler* has been designed to be very consistent in the way its different functions operate. This, we hope, will make operation of the program easy for you to learn and remember.

PART I—Section E—AN EXERCISE

Now here's a chance for you to practice some of what you have learned. Store your "NEW" file and create another document called "SPEECH; A. LINCOLN." Go into the insert mode and change to double spacing.

Legend has it that Lincoln scrawled these words in haste. In any case, given the technology of the day, he had to get it right the first time. We've made some errors in reprinting this excerpt, but fortunately we're going to have another chance to correct them. So please type the following exactly as it appears, then store the file and read on.



The following is the text of the Gettysburg address by A. Lincoln.

Fourscore and seven years ago, our fathers brought forth upon this continent a new nation, conceived in liberty and dedicated to the proposition that all men are created equal. Now we are engaged in a great civil war, testing whether that nation – or any nation, so conceived and so dedicated – can long survive.

Thus, we are met on a great battle-field of that war. We are met to dedicate a portion of it as the final resting place of those who have given their lives that that nation might live.

It is altogether fitting and proper that we should do this.

But, in a larger sense, we cannot dedicate, we cannot consecrate, we cannot hallow, this ground. The brave men, living and dead, who struggled here, have consecrated it, far above our power : add or to detract.

The world will very little note nor long remember what we say here; but it can never forget the unfinished work that they have thus far so nobly carried on.

It is for us, the living, rather, to be very dedicated here. It is rather for us to be here dedicated to the great task remaining before us; that from these honored dead we take increased evotion to that cause for which they here gave the last full measure of devotion; that we here highly resolve that these dead shall not have died in vain; that the nation shall, under God, have a new birth of freedom, and that government of the people, by the people, over the people, shall not perish from the earth.

PART II—Section A-1—CURSOR MANIPULATION

As we saw in section I-D, the cursor can be moved back and forth one character at a time during editing by use of the left and right arrow keys. Pressing and holding the REPeaT key while holding one of the arrow keys down will start the cursor moving forward or back until you release the key.

You will recall that the operation of the left and right arrow keys is different during text insertion. The left arrow key will erase the character just before the cursor, while the right arrow key tells the *Word Handler* to end the insertion and go back into the editing mode.

The rapid cursor moves which we're about to learn apply only in the editing mode. Therefore if you were inserting copy near the end of a document and then wanted to go up and insert copy near the beginning, you would first end the insertion you were working on, move the cursor up to the point of the new insertion, and then go back into the insertion mode.

Now suppose you have just called your document "SPEECH" to the screen and you want to make a change on the fifth word of th fourth line ("nation"). You could hold the right arrow key and then the repeat key and wait for the cursor to arrive at the desired location. This will work fine, but it's a little slow. Would you want to use this method to move the ninth word of the fourteenth line?

Move the cursor back to the top of the screen and try this: Press the right arrow key *once* and release it. Now hold down the ConTRoL key and press the letter "L." Still holding ConTRoL, press the "L" key two more times, then the "W" key four times. The cursor should now be at the word "nation."

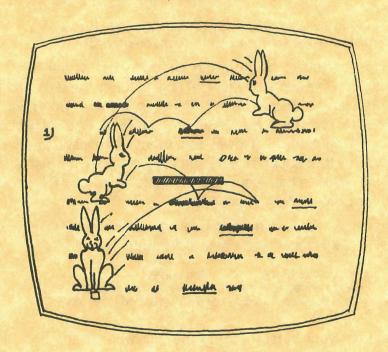
Once again you have used the ConTRoL key to alter the function of some of the keys. In this case you have used CoNTRoL-L to mean "a line," and CoNTRoL-W to mean "a word." Note that "a word" is considered to begin when a character other than a space follows one or more spaces. "A line" means a printed line, even if you are in the non-compact format and the printed line is broken into segments on the screen.

You can also use CoNTRoL-P to move the cursor "a page." The bar that appears across the center of the screen between some text lines and at the end of a document is the end of page indicator. We'll learn more about page endings in a later section.

In all of these cases, hitting the left or right arrow key sets the direction in which the "word," "line" or "page" functions will operate. There is an additional function, the return key, which

works only in the forward direction. This will move the cursor to the next carriage return mark, i.e., the beginning of the next paragraph. The CoNTRoL key has no effect on this function.

No matter which way the direction of movement has been set, you will discover that CoNTRoL-W always takes the cursor to the next beginning of a word. If the cursor is in the middle of a word, left arrow CoNTRoL-W will move it to the start of *that* word, and thereafter to the start of previous words.



Likewise, CoNTRoL-L always takes the cursor to the next beginning of a line in whatever direction has been set. Thus, hitting left arrow CoNTRoL-L with the cursor in the middle of a line will take the cursor to the beginning of the current line first, and thereafter to the beginning of the previous line.

Similarly, CoNTRoL-P moves the cursor to the next or previous line beginning of a page.

Try moving the cursor back and forth using the CoNTRoL-W CoNTRoL-L and CoNTRoL-P functions. What happens if you try to move past the beginning or the end of the document?

Now move the cursor to the top of a document, and set the cursor direction forward. Hold down the CoNTRoL key, then the W key, and press the REPeaT key. Try the same thing with CoNTRoL-L-REPeat. We're really flying now, aren't we?

It's often necessary to move in some combination of lines, words and characters. Take the example of this excerpt:

The following is the text of the Gettysburg address by A. Lincoln

Fourscore and seven years ago, our fathers brought forth upon this continent a new nation, conceived in liberty and dedicated to

If you wanted to go from the second word of the first line ("following") to the second letter ("e") of the fourth word ("new") of the fourth line, the sequence would be right arrow, CoNTRoL-L, CoNTRoL-L, CoNTRoL-W, CoNTRoL-W, CoNTRoL-W, CoNTRoL-W, right arrow. However, it's not necessary to hit the CoNTRoL key four separate times during this operation; just hold it down. This reduces the sequence to: Right Arrow, CoNTRoL (hold down), L, L, L, W, W, W, W, Right Arrow.

Sometimes it's even advantageous to change directions in the course of a single move. Look at the following excerpt:

to the proposition that all men are created equal.

Now we are engaged in a great civil war, testing whether that nation - or any nation so conceived and so dedicated - can long

Suppose your cursor was at the first word of the sixth line ("Now") and you wanted to go to the last word of the sixth line ("that"). You could do this word by word, typing CoNTRoL-W for each word you wanted to skip. Or, you could set the direction forward, move one line, then set the direction backward, and move a word. The sequence would be right arrow, CoNTRoL-L, left arrow, CoNTRoL-W.

Note that once again you can hold the CoNTRoL key down during the entire operation (it doesn't affect the operation of the left and right arrow keys), thereby reducing the sequence of keys to CoNTRoL, right, L, left, W

How would you move from the beginning of the first line of you "SPEECH" file ("The") to the end of the fifth line ("equal")?

Using no more than five keystrokes, how would you go from the beginning of the passage to the next to the last word of the first paragraph?

You can also mix movements by word, line or page with other CoNTRoL key functions that you have learned. Go to the last line of "SPEECH" and, without releasing the CoNTRoL key, change all three occurrences of the word "people" to begin with a capital "P."

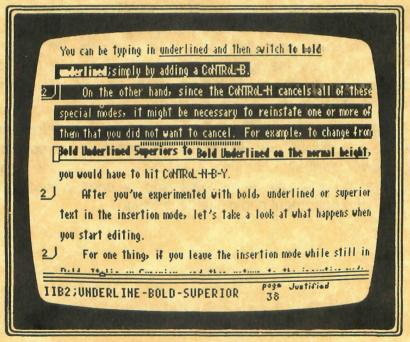
These cursor movement techniques take a little practice to master, but they are used a great deal and greatly facilitate editing. Just as the touch typist has "home" keys for typing, it's a good idea to decide upon a "home" position for editing. For example, you might use your left ring finger on the CoNTRoL key and the left middle finger on the W; the right ring finger can cover the right arrow and return keys, the right middle finger the left arrow and REPeaT keys, and the right index finger the "L" and the "P." Again, there are no hard and fast rules here, so just use whatever arrangement is most comfortable for you.

Here's another problem for you. If you followed the instructions earlier, your copy of the Gettysburg Address is double spaced. As you have learned, changing it to two-and-a-half line spacing requires a command at the beginning of each paragraph. Go through the document and make this change.

Part II—Section A-2—DELETING & EDITING

As we've seen already, if you make a mistake while typing a new insertion, you can rub it out a character at a time by pressing the left arrow key. As with moving the cursor, there are faster ways to delete than one character at a time. These also apply only in the editing mode.

Deletes are accomplished using the CoNTRoL-D. Place the cursor on a character you would like to delete, and type CoNTRoL-D. The character should now appear as a black letter on a white (or green) background, instead of the other way around. In word processing jargon we would say that the character has been "defined" or marked for subsequent deletion.



At this point, you have three choices. If you hit the left arrow key, the character you had marked for deletion will return to its previous condition and the speaker will issue an audible warning. This means that you have cancelled the deletion. Having the option to "back out" provides a safeguard against inadvertent deletions.

Another choice is to delete more material. Once you have hit CoNTRoL-D, you are in a deletion mode. Type CoNTRoL-D and then CoNTRoL-D again. Now type CoNTRoL-W. What happened?

Once CoNTRoL-D has been struck, the CoNTRoL-W, L and P sequences that you formerly used to move the cursor are now used to define additional words, lines or pages for deletion. CoNTRoL-D can also be struck again to define additional characters.

Any sequence of characters, words, lines and/or pages can be added on to the defined area. For example, you could define two lines, the first word of a third line and the first two letters of the word after that by holding down the CoNTRoL key and hitting L, L, W, D, D. Note that the left arrow key will still operate to cancel the deletion no matter how much or how little you have reversed. So you can practice starting a deletion on various combinations of words, lines and paragraphs and then "back out" without really deleting anything.

Unlike a normal cursor movement, the direction of a deletion cannot be changed. Try hitting the left arrow, CoNTRoL-D and then some combination of D, W. & L. The result should be no different than if you had not hit the left arrow key first.

Moreover, deletion does not work retroactively or backwards even if you request a word or line to be deleted that is partly to the left of the cursor.

Prove this for yourself: Place the cursor in the middle of a word and hit CoNTRoL-D-W. You should find that the portion of the word before the cursor is *not* marked for deletion. Likewise, place the cursor in the middle of a line and hit CoNTRoL-D, L. Again, only the portion of the line after the cursor is defined.

Of course, if you need to delete the whole word or line, it's easy to move the cursor back to the start of the word or line. Thus, to define an entire word that the cursor is presently in the middle of, the sequence would be left-CoNTRoL-W-D-W.

The final option, apart from cancelling or expanding the defining of text, is to go ahead and complete the deletion. Hitting the right arrow key will cause this to happen. Now the defined copy is gone forever, so make sure that you have defined your deletion properly before you go ahead!

Another way to end a deletion is to immediately begin inserting. Suppose in the following example you wanted to replace the word "survive" with "endure."

nation — or any nation, so conceived and so dedicated — can long survive.

Thus, we are met on a great battle-field of that war. We are

Using an appropriate combination of CoNTRoL key functions, move the cursor to the word "survive," then, still holding CoNTRoL, hit D, W to define the original for deletion; then, still holding CoNTRoL, I for insertion. At this point the deletion is completed and the *Word Handler* is in the insertion mode. Type "endure" followed by a period and hit the right arrow key to end the insertion.

Starting an insertion is not the only CoNTRoL key function which will terminate a deletion. In the above excerpt, for example, it is possible to delete the word "Thus" and capitalize the word "we" in a single CoNTRoL key sequence. With the cursor at the beginning of "Thus," type CoNTRoL-D-W-K to accomplish both tasks at once.

As you have seen, the CoNTRoL key functions that are normally used to move the cursor serve to define text for deletion when CoNTRoL-D has been pressed. Other CoNTRoL functions cause the defined text to be deleted before they do whatever else they usually do. Perhaps you would like to experiment with other CoNTRoL functions that are not normally used to move the cursor.

PART II—Section A-3—MOVING & COPYING TEXT

If you have been practicing the fast cursor moves and text deletions as described in the preceding chapters, you should be able to move around pretty quickly in a long document and delete and add text at will. With these techniques in hand, copying and moving blocks of text will prove to be extremely simple.

To copy a block of text, you must be in the editing mode. The cursor should be at the beginning of the desired block. Hit CoNTRoL-C. The first character should now be reversed, just as it would be if you had defined it for deletion.

In fact, defining a block of text for copying is exactly the same as defining it for deletion; the only difference is you use CoNTRoL-C for copy instead of CoNTRoL-D for delete. Practice using the CoNTRoL-C with other control characters, like CoNTRoL-W and CoNTRoL-L. Also note that hitting the left arrow key will cancel the copy function, just as it cancels a deletion.

Not too surprisingly, the right arrow key is used to take the defined block and actually copy it. When you try this however, you may be surprised to hear the disk drive whir. What's happening is that the block of text you defined is being copied into a special area of the disk called the "buffer;" from there it can be copied later to wherever you want it

Because the buffer resides on the disk and not in the computer's memory, the defined block can be very lengthy. Not only that, the place you're copying it to can be at the opposite end of a very long document.

To bring the text out of the buffer and into the portion of the document you want it to be in, move the cursor to the desired location and type CoNTRoL-I-C. This brings you into the insertion mode and copies the buffer into the document. Note that you can only copy the contents of the buffer *once*; subsequent CoNTRoL-I-C sequences will produce nothing unless you have defined text again with the ConTRoL-C-Right Arrow sequence. That's because copying the contents of the buffer back into a document automatically clears the buffer.

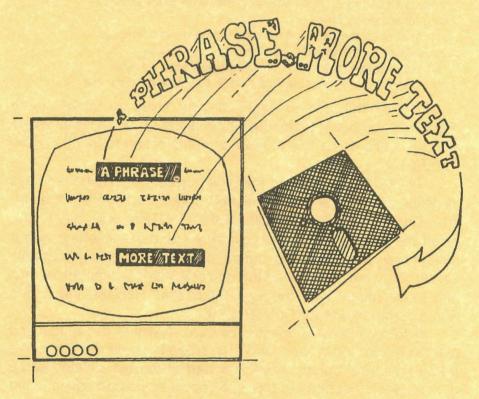
On the other hand, if you copy text into the buffer, and then copy more text into it without first copying the first block of text out of the buffer, the two blocks of text will be combined.

For example, let's go back to "SPEECH" and copy the phrase "It is altogether fitting and proper that" from the fifth paragraph together with the phrase "the nation shall, under God, have a new birth of freedom," and place a copy of both phrases together in a new paragraph at the end.

With the cursor already on the word "It," the sequence would be CoNTRoL-C-D-W-W-W-W-W-W-W right CoNTRoL-P left CoNTRoL-L-L-W-W-W-C-D-L-W-W-W-W-W-W right return CoNTRoL-I-C return right. It's probably harder to read this paragraph than to simply sit down and do it, using the commands you have already learned. In any case, the result should look like this:

It is altogether fitting and proper that the nation shall, under God, have a new birth of freedom.

The ability to add strings of text to the text in the buffer is called "concatenation," and it can be very useful. For example, suppose you had typed a very lengthy report and then wanted to compose a sort abstract consisting of key phrases from the original report. One way to do it would be to read through the large document and copy into the buffer each key phrase in the order in which it was encountered. When you finished, you could copy the entire buffer in one piece at the top of the document, or in a different document entirely. With a little further editing, you would have a thorough abstract with very little typing.



Moving text from one position to another is really the same operation as copying text from one position to another, except that when you copy text you leave the original where it was. When you move text, you delete the original. Therefore, the procedure for

defining text to be moved is the same as that for copying text, except that you type both ConTRoL-C and CoNTRoL-D, followed by any desired sequence of CoNTRoL-W, -L, etc., and then a right arrow.

At this point the defined block has been copied into the buffer and also deleted from its original position in the document. It can then be copied back into the document with CoNTRoL-I-C, just as if it had been defined for copying.

Look at this example:

The world will very little note nor long remember what we say here; but it can never forget the unfinished work that they have thus far so nobly carried on.

It is for us, the living, rather, to be very dedicated here. It is rather for us to be here dedicated to the great task remaining before us; that from these honored dead we take increased evotion to that cause for which they here gave the last

Unfortunately, this excerpt is slightly mixed up. Luckily, there are now a number of techniques for making revisions on the *Word Handler*. Let's use a few of them in combination to fix up our file "SPEECH."

Hit CoNTRoL-C-D and then the correct combination of keys to define the phrase "the unfinished work that they have thus far so nobly carried on." Still holding the CoNTRoL key, hit "I" and insert the phrase, "what they did here." End the insertion with a right arrow and move the cursor down to the next paragraph. Delete the word "very," end the deletion with the right arrow key, and move ahead past the word "dedicated." Replace the period with a comma and type CoNTRoL-I-C.

In this case, we copied a block of text into the buffer and deleted it from the screen, and then typed in some more text. We then moved the cursor to another part of the file, deleted some text and then inserted the block of copy that we had saved in the buffer. The combinations of editing functions are limitless. Store the file and call up other file, "NEW;" now feel free to experiment further.

PART II—Section A-4—SEARCH 'TIL & REPLACE

As you have discovered, being able to move the cursor forward or backward a word, a line, a paragraph or a page is extremely convenient. Sometimes, however, it's desirable to move the cursor directly to a particular word. This can be accomplished in a single operation — even if the word you want to move to is not currently on the screen.

Let's call our file "SPEECH" back to the screen. With the cursor at the beginning of the document type right arrow, CoNTRoL-T. At the bottom of the screen the system will respond with a question, "Forward til:" Type in a word, e.g. "nation," and press return. The cursor is now located at the beginning of the first occurrence of the word "nation;" the *Word Handler* has performed a "search" for the particular word you requested.

Now press CoNTRoL-T again. What has happened?

Now let's try left arrow, CoNTRoL-T. This time the question is "Backward til:" Type in the word "the" and hit return. Hit CoNTRoL-T a few more times. Now hit Right Arrow, CoNTRoL-T.

As you can see, once you have defined a word to search for, and a direction to search for it in, hitting CoNTRoL-T again will move the cursor to the next occurrence of that word in the direction you specified — as long as you don't hit the left or right arrow key again.

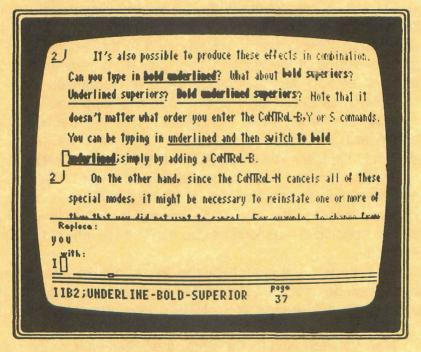
The "target" of a search, by the way, is not limited to a single word. It can be any "string" or series of characters up to 46 characters long, but returns or CoNTRoL key characters may not be included.

Now try searching for the word "the." Starting from the beginning of the document and searching forward until the end of the first paragraph, "the" is found twice. Have you noticed something different about the two occurrence of the word that the cursor found?

The search function in the *Word Handler* is not sensitive to case; it will find all occurrences of the target string whether they are in the same case or not.

Try a search for the "na". Did the cursor stop at the word "nation"? When the search is performed, the *Word Handler* looks for a word or group of words matching the target string. Therefore, it will not attempt to match the target string to *part* of a word in the document.

If you hit CoNTRoL-T and discover that you have typed the target string incorrectly, or if you decide you don't really want to search for it after all, you can abort the entire operation by hitting the right arrow key. Try doing this both during the definition phase and during the actual search; either way works.



A related operation is the global replace. This allows you to specify a string to search for and another one to replace it with at the same time. It then searches forward through the document, starting from wherever the cursor was at the time you initiated the replace, and stops at each occurrence of the target string.

Move the cursor to the beginning of the "SPEECH" file again and type CoNTRoL-R. Near the bottom of the screen the system

asks you, "Replace:" what? Type in the misspelled word "thct" and press return. The system also asks, replace it "with:" what? Type in the correctly spelled "that" and press return again. The cursor is now located on the first occurrence of "thct" following the original location of the cursor.

To make the change from "thct" to "that", press CoNTRoL-R again. To skip that occurrence of "thct" and move on to the next one, type a return. Now press the right arrow key. The replace operation is cancelled. Next time you press CoNTRoL-R you will be prompted for a new search/replace combination. The same thing happens if you type any other character during a global replace.

PART II—Section B-1—JUSTIFIED TEXT

Even before you got involved with cursor acrobatics and text copying and shuffling in the last section, you were already doing some pretty interesting typing on the *Word Handler*. You learned how to get in and out of the insertion mode, how to get caps and lower case on a modified or unmodified Apple II, how to set up line spacing, and how to make proper use of "word wrap" by typing a return only at the end of a paragraph or list item.

Every once in a while you may come across a situation in which "word wrap" produces an undesirable effect. For example, look at the first paragraph of the "SPEECH" file, which contains the name "A. Lincoln." The program broke the line betwen the "A." and the "Lincoln," which could be a little confusing to somebody reading the passage. The reader might at first interpret the "A." as the end of a sentence.

Even if this undesirable break did not occur when the passage was originally typed, subsequent additions and deletions of text before the appearance of the name or changes in the margin settings (see Part III, Section A) could cause this problem to occur later.

Fortunately, there's a solution. Since the space between the "A." and the "Lincoln" must never be allowed to be a line ending point, a means has been provided for you to type it in as an "unbreakable space."

This is accomplished by typing a CoNTRoL-W instead of space while inserting the text in question. The unbreakable space appears on the screen as three little dots. What happens is that the words on either side of an unbreakable space are considered as one word. Rather than end a line at the point where an unbreakable space occurs, the program will force the characters or words on *both* sides of the unbreakable space to the next line.

The unbreakable word space is slightly different from other text characters is that it can only be typed in the insertion mode. In the editing mode, of course, the CoNTRoL-W has different uses — to move the cursor forward or backward a word, or to copy, move or delete a word. So if you had a regular space that you wanted

to replace with an unbreakable space, you would put your cursor on it and type CoNTRoL-D-I-W, right arrow. This multiple operation deletes the space, inserts the unbreakable space, then ends the insertion.

Try this procedure now on the "A. Lincoln" in your "SPEECH" file. After you complete the insertion, move the cursor back and forth across the "A. Lincoln" using CoNTRoL-W. Does the Word Handler count "A. Lincoln" as one word or two?

Along with automatically breaking text lines to fit within the existing margins, *Word Handler* has the ability to *justify* text. This means that each text line will be spread out horizontally to exactly fill the space between the margins, as is commonly done in books, magazines and professional printing.

Justification is accomplished by taking the extra space normally left over at the end of a line and dividing it up equally among the word spaces on that line. But not to worry — you don't have to do all of the tedious counting and dividing this requires! The Word Handler performs it instantly as you type.

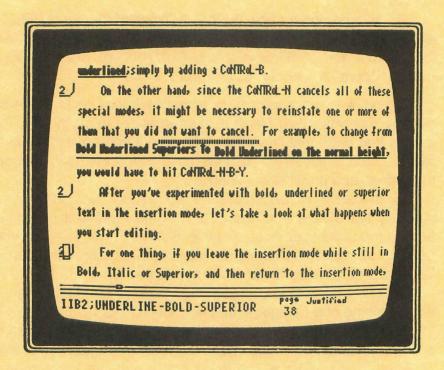
To get justified copy, all you have to do is place the cursor at the beginning of a paragraph and type CoNTRoL-J.

If you are inserting text everything you type from that point on will be justified until you type CoNTRoL-J again. The word "justified" will appear at the lower right corner of the screen to remind you that justification is in effect.

It is possible to have parts of a document justified and parts of it non-justified, or "ragged." Especially when combined with line spacing and other effects, this can help set off different areas of the text for stylistic reasons. To better understand the workings of a partially justified document, insert a short justified paragraph into the middle of your "NEW" document and return to the editing mode.

Then move your cursor back to the paragraph before the insertion. The word "justified" should *not* appear at the bottom of the screen. When you move the cursor into the justified paragraph, the "justified" sign should appear. When you move back into ragged text, it should go away again.

Thus, as you move through a document, the status line at the bottom of the screen always keeps you informed of the justification situation in effect at the point of the cursor.



You can also change an already typed paragraph from justified to unjustified, or vice versa, by placing the cursor at the beginning of the paragraph, i.e., right on the line ending marker, and typing CoNTRoL-J. When this is done the text vanishes for a moment and then reappears in the newly requested form while the status line at the bottom immediately registers the change.

Take two consecutive unjustified paragraphs and try changing the first one from unjustified to justified. As you move the cursor through it, the status line (and the appearance of the text itself) shows you that the paragraph is justified. Now move the cursor down into the next paragraph. Has that become justified as well?

Since you can switch back and forth from justified to ragged in

insertion, which can serve useful stylistic purposes, you certainly don't want a justification change during editing to affect the entire document indiscriminately. Therefore, the *Word Handler* has been designed so that a CoNTRoL-J placed at the start of an existing paragraph will only change that paragraph.

To make an entire document justified when it has previously been unjustified (or vice versa), it is necessary to type CoNTRoL-J at the beginning of each paragraph. As you will recall from the preceding section, the fast way to move the cursor to the start of a paragraph when editing is to hit the return key. So, starting from the top and then hitting CoNTRoL-J-Return for each paragraph will eventually justify (or unjustify) an entire file.

It's a good idea to decide in advance whether you want your document to be justified, especially if it is a long one.

PART II — Section B-2 — SPECIAL EFFECTS

Back in the olden days, when folks used to do their typing on typewriters, underlining text entailed backing up the correct number of spaces and then typing the correct number of underscores. Bold or double-striking, if anyone bothered to do it at all, required backing up to the beginning and typing the text all over again. Superior characters required stopping to turn the platen, then stopping again to turn it back; getting two separate superiors on the same line to align vertically was strictly a hit or miss operation.

Producing these effects on the *Word Handler* is much easier. Go into the insert mode and type CoNTRoL-Y. <u>Voila! The text is underlined</u>. Note that the word "underlined" appears at the bottom of the screen. To return to normal typing, type CoNTRoL-N. The status line at the bottom of the screen is now clear. Now try CoNTRoL-B. **The type is bold! Once again, to return to normal we type CoNTRoL-N.** Finally, let's try CoNTRoL-S. Up we go! Yet again, CoNTRoL-N returns us to normal typing.

It's also possible to produce these effects in combination. Can you type in **bold underlined?** What about **bold superiors?** Underlined superiors? **Bold underlined superiors?** Note that it doesn't matter what order you enter the CoNTRoL-B, Y or S commands. You can be typing in underlined and then switch **to bold underlined** simply by adding a CoNTRoL-B.

On the other hand, since the CoNTRoL-N cancels all of these special modes, it might be necessary to reinstate one or more of them that you did want to cancel. For example, to change from **Bold Underlined Superiors to Bold Underlined on the normal baseline,** you would have to hit CoNTRoL-N-B-Y.

After you've experimented with bold, underlined or superior text in the insertion mode, let's take a look at what happens when you start editing.

For one thing, if you leave the insertion mode while still in bold, italic or superior, and then return to the insertion mode, you will find that you are automatically back in normal type; leaving the insertion mode has the same effect as typing CoNTRoL-N as far as these special effects are concerned.

If you try to hit CoNTRoL-B or CoNTRoL-S when in editing mode, you will get a beep indicating that it is not possible to type bold or superior when you are not inserting. *However*, if you type CoNTRoL-Y when in editing mode, you will find that the character at the cursor is now underlined. You cannot change a normal character into a bold or superior character, but you can underline it.

Now try putting your cursor on underlined, bold or superior characters and hitting CoNTRoL-N. In the editing mode the CoNTRoL-N removes an underline, but it does not change a bold or superior character into a normal one.

What will typing CoNTRoL-N in the editing mode do to a bold underlined superior character that the cursor is on?

Now try striking over a bold character, an underlined character, a superior character. Although the status line doesn't say so, the strike over character retains the characteristics of the character it is replacing.

This can be useful if you need to make a correction in a bold or underlined or superior character or word; you don't have to go into the special condition again to make the correction. But it also means that the only way to change a normal character to a bold or superior one, or vice versa, is to delete and then retype it in the desired form.

Underlining, however, can always be added or taken away by using CoNTRoL-Y or CoNTRoL-N in the editing mode.

Here's an experiment you might wish to try. Underline a word in one of your documents and then do a CoNTRoL-R with that word as the target. Is the replacement underlined? Try the same thing with bold and superior words.

What happens if the replacement string is longer than the bold, superior or underscored target string?

PART II — Section B-3 POSITIONING TEXT ELEMENTS

Tabbing on the *Word Handler* is not too much different from tabbing on a typewriter. One of the advantages is that you can always see where the tab stops presently are.

Create a new file called "TABS", go into the insert mode and type CoNTRoL-Q. Look at the bottom of the screen, where three lines extending across the screen separate the text area from the document name, page number and status areas. On the uppermost line, directly under the cursor, there should now be a small rectangle. This is the tab marker.

Now type CoNTRoL-Q again. The tab marker is gone. CoNTRoL-Q is used to both set and clear a tab stop at the cursor.

How to actually get to a tab stop once it's been set will vary slightly depending upon whether the Apple-II keyboard has been modified for use of the shift key. On an unmodified Apple-II, the ESCape key is used to put the *Word Handler* into upper case for the next character. If you hit the ESCape key twice in a row, however, you will stay in lower case and the cursor will go to the next tab stop.

On an Apple-II which has an operative shift key, it's no longer necessary to hit the ESCape key twice to tab. The Word Handler detects the shift modification and interprets the ESCape key as a tab key right away. Hitting ESCape twice will cause the Word Handler to tab twice on a modified Apple.

When tabbing occurs, no matter whether it required hitting ESCape once or twice, the system inserts spaces between the current cursor position and the position of the tab stop. If there are no more tab stops on the line, the line will be padded out with spaces and a Return will be inserted automatically. This has some important implications when tabular work is edited.

Suppose you wish to make revisions to this table:

Item	Color	Quantity	Price
Pillows	Blue	1001	\$15.00
Blankets	Green	560	\$39.00
Sheets	White	3200	\$12.00

Input the above table. Now suppose you want to go back and delete the word "Blue" and replace it with "Turquoise." Putting the cursor on the "B," hold down CoNTRoL and type D-W-I; release CoNTRoL and type "Turquoise." Hit right arrow to end the insertion. You should get something like this:

Item	Color	Quantity	Price
Pillows	Turquoise1001		\$1,5.00
Blankets	Green	560	\$39.00
Sheets	White	3200	\$12.00

What this shows is that if you make a change which affects the number of spaces an item in a table occupies, it affects the positioning of everything else on that line. Since the blank spaces after "Blue" were deleted as part of the word and not typed in with "Turquoise," the rest of the line is too far to the left.

If, instead, you delete "Blue" without the spaces and replace it with "Turquoise," everything following it on that line ends up too far to the right. Moreover, the blank spaces following the last column are pushed down onto a new line by themselves, resulting in extra space between the entries:

Item	Color	Quantity	Price
Pillows	Turquoise	1001	\$15.00
Blankets	Green	560	\$39.00
Sheets	White	3200	\$12.00

Therefore, the best way to edit tabular matter is often to delete the entry including all the spaces up to the next column, insert the new entry and then *tab over* to the next column before ending the insertion.

If tabbing on the Word Handler is similar to tabbing on a typewriter, centering copy is much easier.

In order for a line to be centered, it must be preceded and followed by returns. The Word Handler will balk if asked to center a "line" which is more than a line long!

To center the line, first type it in and press Return. Leave the insertion mode and place the cursor anywhere on the line. Type CoNTRol-X. That's all there is to it.



Suppose you have centered a line and then decide you don't really want it centered after all. Since all the centering has done is to insert spaces in front of the text on the line, deleting those spaces will move the line back to the left margin. This can be done rapidly using the delete word function, since a word is considered characters, including extra spaces, up to the beginning of the next word. Thus, with the cursor located right after the Return mark, the sequence CoNTRoL-D-W Right Arrow will uncenter a centered line.

Extra spacing between lines is another convenience feature of the *Word Handler*. We've already seen how the CoNTRoL-V can be used at the beginning of a paragraph to change the vertical spacing for following copy. Sometimes, however, we want to add extra space *between* paragraphs without affecting the line spacing within paragraphs.

This can be accomplished by typing CoNTRoL-L while in the insertion mode (in the editing mode, of course, CoNTRoL-L moves

the cursor forward or backward one line). This will put in a return mark with 1/2 a line spacing.

A CoNTRoL-L half-line space can only be added at the start of a paragraph. If you type one in the middle of a line, and resume typing, an ordinary return mark will also be inserted. If you type an ordinary return and then CoNTRol-L, the CoNTRoL-L space will appear before the ordinary return. Try it and see!

Like any other return mark, the return mark generated by CoNTRoL-L can be increased in size in half-line increments by typing CoNTRoL-V. Once it gets past 2-1/2 lines, it will go back to one full line space if you continue to press CoNTRoL-V, but never back to half a line.

Changing the vertical spacing when inserting an extra return is an alternative to typing multiple returns and/or CoNTRoL-Ls. For example, in single spaced copy, instead of typing two extra returns or four CoNTRoL-Ls to skip two lines, you can type one extra return and then hit CoNTRoL-V until you've made it into a two-line return. Then change the line spacing back at the return which starts the following paragraph. Although the printed copy won't look any different, this method saves space on the screen, enabling you to see more of your document at one time.

PART II—Section B-4—PAGE BREAKS

One of the biggest benefits of the *Word Handler* as opposed to an ordinary typewriter (or even some other word processors!) is that it eliminates the need to watch out for the end of a page. The *Word Handler* takes care of page breaks automatically, just as it takes care of line breaks automatically. Text is treated as a continuous stream that will flow into lines and pages according to what fits. If text is deleted, the following text will flow up to take its place. If text is added, the line and/or page break points thereafter will all be modified automatically to make room.

A page break is indicated on the screen by a bar across the center of the screen. As you move the cursor up and down past page breaks, the current page number is automatically reflected in the page status field at the bottom of the screen.

When you are typing across a page boundary, i.e. from the bottom of one page to the top of the next, the page break will not appear until you end the insertion and return to the editing mode. At that time, the page number in the status field at the bottom of the screen will be incremented, and the page break bar will appear at the appropriate point on the screen.

When breaking pages, Word Handler automatically avoids "widow" and "orphan" lines. A widow would occur when only the first line of a paragraph fit on a page and would thus end up at the bottom of the page by itself. An orphan would occur when the last line of a paragraph couldn't fit on the same page as the rest of the paragraph, and would thus end up on the next page by itself. Both of these situations are undesirable, and both are automatically avoided by the Word Handler.

Nothing is perfect, however. A page ending point may comply with the rules about widows and orphans and still be undesirable for one of several other reasons.

A paragraph, as far as the *Word Handler* is concerned, is any group of lines ending with a return. Sometimes, in tabular work, for example, it's necessary to return after each line; here each line is considered by the *Word Handler* to be a separate paragraph and hence a possible page break point. If a short table is being inserted

into ordinary text, however, one would not want the page to break within the table.

Similarly, if a document contains subheads, each subhead is treated as a paragraph, and it is possible for a page break to occur right after the subhead. This, too, would be undesirable.

The problem of breaking pages is a complicated one, and it involves considering the content of a document as well as its form. Sometimes the best place for a page break is simply the one that separates two logical portions of the document, without regard to how much extra space that may leave on the page before the break.

Word Handler addresses the problem by providing a forced page break, CoNTRoL-P, which is typed while in the insertion mode (in the editing mode CoNTRoL-P would of course move the cursor forward or backward a page). When CoNTRoL-P is inserted, a return symbol with no line space value is placed on the screen. When insertion mode is terminated, the page break bar will also appear at that point on the screen.

Once forced page breaks are inserted, the document is no longer "fluid" in the sense that the text will flow into the available space. If text is added to a page which has been broken with a CoNTRoL-P, lack of space may cause an automatic page break to occur shortly before the forced break. The forced break will still be there, however, so an extra short page will be created.

For this reason, it's a good idea to avoid inserting forced page breaks until the document is pretty much in its final form and won't require heavy editing. If there's doubt about this, it might be worth inserting the breaks in a copy of the document, leaving the original in its "naturally" paginated state. In any event, when adding forced page breaks to a document, always start at the top and work down, since any forced break could potentially change all subsequent page breaks in the document.

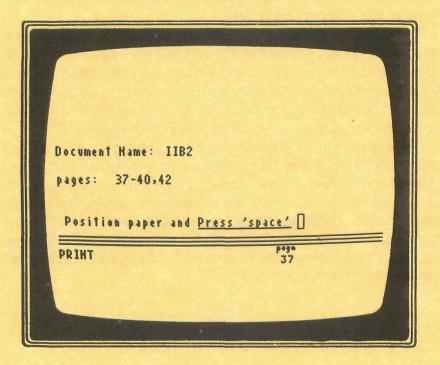
PART II — Section C-1 — PRINTING

By now you've put a good deal of work into correcting the errors in our version of the Gettysburg address, and if you performed all the operations as described in the preceding chapters the file should now be perfect.

That being the case, you're probably eager to see how it looks printed out on paper. That is, after all, what word processing is ultimately for.

If you are still in the editing mode, it is now time to exit to the "idle" state of the *Word Handler* by typing CoNTRoL-E. All operations of the *Word Handler* not directly involved in altering or adding to a document are performed from the "idle" state.

Your printer should now be plugged in, loaded with paper and properly attached to the Apple computer. If you have not already entered the slot number and printer type information as described in Part One, or if for some reason the information you entered is



incorrect or out of date, turn back to Part One for information on how to reboot the *Word Handler* and enter the correct information.

Now, back in the idle mode, enter the word "PRINT" in lieu of a document name and press return.

The Word Handler will now check to see that the printer is turned on, and if it is, will request the name of the document to be printed. If the printer is connected to the computer but not turned on, and the print function has not been used since booting the Word Handler, the program will stop. Resume operations by turning the printer on or rebooting the program.

As with calling a document to the screen for editing, if the name of the file contains a semicolon you need only type the portion of name preceding the semicolon. If you make a mistake in typing the name, the left and right arrow keys (but not any of the CoNTRoL functions) can be used to make corrections. When you have finished typing the name, press return.

The disk will spin as the *Word Handler* looks for the document you requested. If the name you typed is not the correct name of a document that exists on the disk, the *Word Handler* will reply in the same way it does if you tried to call a non-existent document to the screen for editing — i.e., it will report "Name not found on disk" —and then let you try something else by hitting any key.

If you typed the name correctly and hit return, you will be asked which pages of the document you want printed. You can specify a single page (e.g., "2", which will give you page 2 only); a series of consecutive pages, (e.g., "3-5", which will give you pages 3, 4 and 5); a series of non-consecutive pages (e.g., "2,5,8", which will give you pages 2, 5 and 8); or a combined series of consecutive and non-consecutive pages (e.g., "2, 4-6, 8", which will give you pages 2, 4, 5, 6 and 8).

There is one restriction on the page numbers you can enter: they must be in ascending order. Although the *Word Handler* won't tell you anything is amiss if you enter page numbers "2,1", it will simply print page 2 and then quit since the next page number is lower.

By the same token, if you enter pages with numbers higher than actually exist in the document, the *Word Handler* will quit when it gets to the first non-existent page. This can be useful if you want to print an entire document but have forgotten how many pages are in it; rather than call it back to the screen for review, you can enter an ending page number which is impossibly high. The *Word Handler* will keep printing until it runs out of pages.

When you finish entering the page numbers, press return. The disk will spin, the page number indicator at the bottom of the screen will go to the number of the first page you asked for, and an instruction to position the paper and press the space bar will appear on the screen.

As each page finished printing, the page number will go to the next number you asked for, and the "position paper and press space" message will appear again. This feature is provided for the benefit of those using sheet feed printers, in which each sheet of paper must be inserted separately. If you have a continuous feed printer, it is still useful to make sure that the vertical alignment is correct before going on to other pages.

PART II — Section C-2 — FILE MANAGEMENT

Renaming a document

Apart from operating the printer, another useful function that is performed while the *Word Handler* is in its "idle" state is renaming a document. To do this, type "RENAME" and press return. Then enter the *original* name of the document in question — e.g., "SPEECH" — and press return again. Finally, enter the new name — e.g., "NEW; GETTYSBURG ADDRESS" — and press return a third time.

Well, now, we seem to have a problem: there is already a document called "NEW; THIS IS A TEST" on this disk (we put it there during Part One of this tutorial). Note that the part before the semicolon is the only part of a name that matters to the *Word Handler* in terms of uniquely identifying a document, and that part of a name cannot exist for two different documents on the same disk.

We now have to try all over again. We could call our document "LINCOLN; THIS IS A TEST" — the fact that the part after the semicolon aready exists on the disk does not matter. Do that, and then display an index to confirm that the document has been renamed.

Suppose we now want to rename the document again. This time, let's call it "ABE; THIS IS A TEST." As you already know, it's not necessary to include "THIS IS A TEST" when entering the *original* name of the document. Is it necessary to type it in again when entering the *new name*, or will it remain part of the place if we type "ABE;"? Try it and find out.

Backup

Another important function performed from the *Word Handler's* "idle" state is BACKUP. Like PRINT and RENAME, the command "BACKUP" is entered in lieu of a document name. The *Word Handler* will ask for the name of the document you wish to back up, or copy, and for a new name to call the copy.

Backing up is an important way to safeguard the material on your disk. If one copy of a document accidentally gets erased, for

example, a spare can save hours of retyping. Moreover, the ability to make a spare copy easily means that you can be more creative and bold when revising a document. If you want to see how the document reads with sentences, paragraphs or pages deleted, making a backup copy first gives you the option to revert to the original version later.

Backing up is most useful when the BACKUP copy is on a different diskette; this protects you not only against changes of mind, but also against loss or destruction of the disk. If you have more than disk drive on your system, see Section III-C for more information on multiple disk operations.

If you have one disk drive, the BACKUP command cannot be used to copy files from one disk to another. This can only be done through the FID utility program on your DOS System Master diskette. The use of this program is described in detail in Appendix J of the Apple II DOS Manual.

Erasing a document

It is unlikely that you will want to keep permanently on disk every document you have ever created. Of course you already know how to delete all the text out of an existing file, and even how to rename it; you could do this to documents you no longer wanted to keep and then re-use them for something else.

There is another way, however, which is easier on both you and on your disks. That is to erase an old document when it is no longer needed. Let's first create a document called "TRASH"—which can be done by backing up one of the documents already on the disk. We don't want to delete either of our other test files yet, so we'll delete "TRASH" for practice instead.

We do this by returning the *Word Handler* to its idle state, typing ERASE and then pressing return. Enter the name of the document — TRASH — and press return again.

Be extremely careful here. Once you press return after typing the document name, it is gone forever — unless, of course, no such document exists, in which case you'll have to start over. But if a document with the name you type exists it will be deleted irretrievably the moment you hit return; there is no second chance. So please be sure you are deleting the right document.

After you have deleted one or more files, press return again to get an index of the disk. The file you deleted is now gone from the index, and the number of "k free" should be higher.

Unlike some systems which you may have encountered, the Word Handler does not require you to get involved with "house-keeping" tasks like compressing the surviving documents into unused areas of the disk. You can create or erase documents of any length, or add to or delete from them any amount of text, and the Word Handler will automatically keep track of which disk "sectors" are being used and which are still available. Your only concern is not to exceed the capacity of the disk, as discussed in Part One.

PART III, Section A — FORMAT CHANGES

So far, although we have been making our own decisions about line spacing, boldness and justification, we have been using values built into the *Word Handler* program for margins, number of characters per inch (pitch), number of single-spaced lines per inch, and page numbering.

The values that we have been using are the ones we'll probably be using most of the time: margins of approximately one inch all around on 8-1/2" by 11" paper; 10-pitch type; six single spaced lines per inch; and a page number at the bottom of each page, starting with one. The program gives us these values unless we tell it to change them; hence they are called the "default" values.

However, we are by no means locked permanently into this format. We can vary the formats very easily, and store a different one on the disk for every file.

This is done while a file is open for editing by striking the sequence CoNTRoL-F (for "format"). When you do this, the document name will remain at the bottom of the screen, but the text will go away.

In its place, you will see a display of the default values which looks something like this:

PAPER WIDTH: 8.5 PAPER LENGTH: 11 1.0 LEFT MARGIN: RIGHT MARGIN: 0.9 TOP MARGIN: 0.8 **BOTTOM MARGIN:** 1.0 PITCH (10 OR 12): 10 LINES/INCH (6 OR 8): 6 FIRST PAGE NUMBER: 1 HEADER DIST FROM TOP: 0.4 FOOTER DIST FROM BOT: 0.4

The cursor will move downward through this list each time you press the return key. If you do not want to change one of the items, hit return without typing anything. If you want to change an item type in the new entry and then press return.

All of the values in this format table are expressed in inches (i.e., the left margin is one inch, the right margin is 9/10ths of an inch, etc.). You must follow this convention in entering any new values.

Supposing you wanted to change the top margin from 0.8 to 0.9. If you press the right arrow key to move the cursor over to the

8, it will instead move *down* to the next entry; the right arrow has the same effect as the return! You must type over the zero and the period to get to the eight. Notice that as soon as you type the zero (or any other character), the original entry "0.8" will disappear *entirely*.

If the value you type is incomprehensible to the program or impossible to execute — for example, if the sum of your margins is greater than the width of the paper — the *Word Handler's* distinctive audible warning will be sounded, and you will have to try again. If not, the value will be presumed correct and the cursor will move down to the next item.

There is no way to move the cursor up when entering format changes. If you decide to change a value you have entered (or bypassed) above the present position of the cursor, you will have to complete the format change procedure, and then begin all over again.

Note that when you change the horizontal paper size or the margins, you are changing the number of spaces available on the line. This will affect the line breaks, which will in turn affect the page breaks. Here's one occasion were word wrap really comes in handy!

Margin changes affect the *entire* document, no matter where the cursor was at the time you hit CoNTRoL-F. You will see these changes immediately when you finish entering the format changes, with one exception: if you are in the 66-character compact format, and your new margins allow more than 66 characters on a printed line, the screen will not reflect the new line breaks, although the printed copy will. You must go back to the non-compact format to see the true line breaks on the screen.

Another possible problem is if you set the paper size to one wider than the capacity of your printer. This may cause the excess characters from the end of the line to overprint the beginning of the line, and there will be no indication of this until you begin printing.

You may be wondering why you are asked to enter a starting page number. The answer is that a large manuscript might not fit

on a single diskette. Even if it did, it might not be desirable to keep it on the disk as one document, since it would be easier to get to different parts of it for editing if it were broken up. When it was printed out, however, a single sequence of page numbers through the entire work could be maintained by entering an appropriate starting page number in the format of each portion.

The "header" and "footer" information refers to material that is typed *within* the top and bottom margins. The distances supplied here *must* be smaller than the top and bottom margins themselves.

When you finish entering this information, the display will change. The Word Handler will ask you to enter:

```
ODD PAGE HEADER ("#" = PGNUM):
ODD PAGE FOOTER ("#" = PGNUM):
--#--
EVEN PAGE HEADER ("#" = PGNUM):
EVEN PAGE FOOTER ("#" = PGNUM):
```

When you begin typing in the headers and footers, you will find that there you can type up to three lines of non-compact format typing. Actually, the header or footer can only be one printed line; if you supply too much text, the end of the line will overprint the beginning. In addition, underlined, bold and superior characters are not available for use in headers or footers.

If you attempt to edit an existing header or footer you will find that, as with other format entries, the entire entry disappears as soon as you begin to type. Also, if you try to use the right arrow key to skip over part of the old header or footer, the cursor will again pass into the next entry area (or, if you are at the end of the format, back to the text).

The text typed for a header and footer will automatically be centered unless the first character you type in is a space. In that case, the positioning of the text will be determined by how many spaces you type in, the same as on an ordinary line of text.

The "#" represents the page number which will be supplied by the program. It can be placed anywhere in the header or footer (or both). In fact, it can even be placed twice in the same header or footer.

The even page header will be the same as the odd page header unless you specify something different. The same is true of the footers. If you want the same header on the even page as on the odd pages, just hit return when you get to the even page header entry. If you want a header on the odd pages but no header on the even pages, type a space in the even page header entry, then return.

PART III — Section B-1 — DOCUMENT MERGING

Very often it is desirable to copy text into one document, which we'll call the "destination" document, from one or more other documents, which we'll call "source" documents. This can be accomplished with the get text function.

To use this function, you should be in the editing mode, the file on the screen being the one *into* which you are going to copy text.

Let's suppose you had the file "NEW; THIS IS A TEST" and wanted to copy some of "ABE; GETTYSBURG ADDRESS" into it. Let's say you wanted to copy the second paragraph of "ABE" at the end of the third paragraph of "NEW."

First, move the cursor to the point where you wish the new material to appear. Then type CoNTRoL-G (for "get"). A line will appear at the bottom of the text area with the word "Get:" beneath it, and the cursor will be positioned after that. At this point you must type in the name of the document you wish to get text from, and also specify the lines you wish to get.

If you specify a document that doesn't exist, or line numbers that the document does not contain, the cursor will simply return to the text without any copy being inserted. In this case, you will type "ABE,5-7" and so lines 5 through seven of the file which contains the Gettysburg Address will appear in the file "New."

In locating lines five through seven, the Word Handler counts carriage return marks, including extra half-line indicators, as lines of text. Other text lines will be counted as they last appeared in the source document. Therefore, depending on exactly how many returns are in your version of "ABE" prior to the portion you are trying to copy, and depending on where the margins were most recently set, the exact text that you get with this instruction may vary somewhat. Before using the CoNTRoL-G function, you should make it a practice to print out or review the source document, in order that you can correctly identify text by line number.

If you did not get exactly the text you were trying to get, try again with a different set of line numbers.

Once you have gotten this to work, change the margins in your "NEW" document to two inches on each side (rather than one inch on each side). Then put the cursor in the middle of a line and get the same text again. Does it look the same?

Whatever the margins of the source document, the text being "got" will be broken into lines conforming with those of the new document. If the cursor was positioned at the middle of a line in the new document when text was copied in from the other document, the new text will start from that point and break as if it had been typed in again in the ordinary manner.

Now let's suppose you wanted to copy the lines 10 through 12 of the source document, *then* lines five through nine. This could be accomplished by typing CoNTRoL-G, then "ABE,10-12,5-9." You can copy many excerpts from another file in any order wih this command. Try a few variations.

After the first time you get text from a particular source file, it's no longer necessary to specify the file name again; the *Word Handler* will get the text from the last source file referenced, unless another is specified. Thus in the above example, since you had already gotten text from "ABE," you could have merely specified the desired line numbers, i.e., "10-12,5-9" the second time.

This implies a certain limitation in the names of files which can be used as source files: they cannot begin with a numeric character, or the system would confuse them with line numbers. Apart from that, of course, there is no distinction between a source file and any other document, and the same file may be both a source file and a destination file at various points during its "life" on the disk.

If you have more than one disk drive on your system, and have defined one of the drives to be a "secondary" drive, the source document will be assumed by the *Word Handler* to reside on the secondary drive. See section III-C for details.

PART III — Section B-2 — FILLING IN FORMS

One of the most tedious of typing chores is having to type the same document over and over again with only slight variation, such as a name or address. With the *Word Handler* on your side, the repetitious retyping is eliminated; you only have to type the parts of the document that differ from one copy to the next.

For example, suppose you wanted to send a personalized form letter to a large number of people. The text of the letter is the same for all of them; what varies is the name and address, and perhaps one or two other words. As an example, create a document called "FORM" and type something like the following.

103 Main Street Anytown, U.S.A. <DATE>

<FIRST NAME> <LAST NAME> <ADDRESS> <CITY, STATE, ZIP>

Dear Mr. <LAST NAME>

Last month we wrote you with a fabulous offer to subscribe to *Obscurity* magazine for one tenth of the newsstand price. So far, we have not yet heard from you. We find this incomprehensible.

Experts from every field of human knowledge have agreed on one point: your life just isn't worth living without a subscription to *Obscurity*. Let's get moving, <FIRST NAME>! We want your order now!

Sincerely, Michael Mammon, Vice President

In this letter, the use of the "<" and ">" signs to bracket a phrase means that that phrase, or "field," will be replaced by various other phrases during the form fill-in process.

Here's how to start that process. Store the "FORM" document you just created and type "FILL-IN" in place of a document name while the *Word Handler* is in the idle mode. You will be prompted to supply a document name, which will be "FORM" in this case, and a new name, which typically will be something that uniquely identifies the *version* of the "FORM" you are generating.

For example, if you are sending a copy of this letter to someone named Peter Smith, you might call the new document PETER SMITH.

Once you have specified both names, you will be prompted to supply specific information to be inserted in the first of the items that were enclosed by "<___>" in the "FORM" document. When you do that and press return, you will be prompted for the next item. When all of the fields enclosed by "<___>" have been filled in, the file PETER SMITH will appear on the screen. It will look exactly like the FORM document, except that that "<Date>" will be replaced by the date you supplied, and so forth.

The new PETER SMITH document can be further revised or personalized as needed before being stored and printed. The original FORM document still exists on the disk, so the process can be repeated for as many different versions of the letter as are desired.

You probably noticed that <FIRST NAME> was called for twice in "FORM." How many times did you have to supply a value for this field? Was the <FIRST NAME> field filled in twice in the PETER SMITH letter?

In the FORM file you just typed, all the field names started with capital letters. Let's do another version with some other name and address, only now let's not bother to capitalize the first letter of the name and other information we supply.

Does the name come out as we wrote it during the fill-in process? Not quite. If the field starts with an alphabetic character, the case in which the first letter of the field was typed in the form itself governs whether the first letter of the fill-in text will be capitalized in the new version generated by the fill-in command.

Underlined, boldface and superior characters are not available in fill-in copy.

Try using the form with names of radically different lengths. The positioning of the inserted material will remain the same, relative to that of the surrounding material: if the fill-in material is shorter than the name of the field it is being inserted in, following text on that line will close up to fill the gap; likewise, if

the inserted text is longer than the field name, following text will be pushed back.

Usually, that is. Let's try a form which looks like this:

First field: <First > First name
Second field: <Initial> Middle Initial
Third field: <Last> Last Name
Finally: <Birthplace> Birthplace

Try created filled in versions of this form with entries of varying lengths. You'll discover that now the inserted material does not maintain the same fixed relation with the permanent text; the *Word Handler* will keep the tab columns aligned by varying the amount of space between the fill-in text and the following copy.

What happens if the copy entered into a fill-in field contains more characters than will fit in a tab column.?

You may be wondering how you will be able to know, in a given circumstance, whether the text following a fill-in field is going to move back and forth depending on the length of the fill-in or maintain the same absolute horizontal position regardless of that length? The Word Handler uses this criterion: if there are three or more consecutive spaces between the fill-in and following text, the line is considered a tabular line, and absolute horizontal alignment of all entries will be maintained. If there are two or fewer spaces between the fill-in and the following text, the following text will be shifted as needed to maintain the original distance from the last character of the fill-in copy.

PART III — Section C — MULTIPLE DISKS

If your Apple has two or more disk drives, the Word Handler gives you great flexibility in using them.

When you first boot the *Word Handler*, all operations that involve using a disk will use the drive you booted from. Now, if you have another disk drive, type "USE DISK 2" in lieu of a document name while in the "idle" mode. Make sure you have a disk in drive #2 and then create a document in the normal way. You can tell from the "in use" light on the front of the drive that the document is being created on drive #2. Any *Word Handler* operation which involves use of the disk will from this point on use the #2 drive.

At any time when the Word Handler is in the idle mode, you can specify a different drive for the system to use. If you have a third drive, "USE DISK 3" will switch operations to drive #3. Or, you can switch back to drive #1 by typing "USE DISK 1."

Some Word Handler functions involve more than one document. In the editing mode, CoNTRoL-G gets lines from another document and copies them into the document being edited (see Part III, Section B1). In the idle mode, BACKUP makes a spare copy of a document (see Part II, Section C), and FILL-IN copies a form document and allows you to insert data in pre-defined fields (see Part III, Section B2). It is possible to arrange things so that one of the documents involved in these functions is on a different drive from the other.

This is done by means of a special variation of the USE DISK command, in which you specify a "primary" and a "secondary" drive. For example, let's make drive #2 our primary drive and drive #1 our secondary drive. In the idle mode, type: "USE DISK 2/1." Then experiment with creating, retrieving, indexing and printing documents. The action will be on disk #2, the primary drive.

However, when you try to do a CoNTRoL-G, the document you want to copy lines from will have to be on the secondary drive, i.e. drive #1. If you wanted to copy lines from a file on the primary drive, you would have to issue a new USE DISK command to "undefine" the secondary drive.

Likewise, if you typed a BACKUP command, the file you wanted to copy would have to be on the primary drive. If you still had a different secondary drive defined, the copy would be made there.

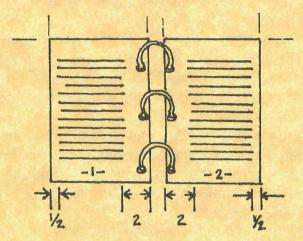
In the case of a FILL-IN, the new document would be created on the primary drive, using a form on the secondary drive.

Remember, you can redefine your primary and secondary drives at any point, so you should have no difficulty in getting at the disks you want. With two disk drives on your system, you can exchange information between different diskettes very easily; with more drives, you can keep a vast amount of material literally "at your fingertips" without having to swap floppies.

If you only have one drive on your Apple, do not despair. The CoNTRoL-G, BACKUP and FILL-IN functions will all work just fine within a one disk environment, as you have already learned. It will sometimes be necessary, however, to use the FID utility program to copy files from one disk to another in order to make them available for these (or other) applications. This program comes on the 3.3 DOS System Master diskette and is described in detail in Appendix J of the Apple III Dos Manual.

PART III — Section D — PRINTING PYROTECHNICS

Well, now you know how to do nearly everything you'll ever need to do with the *Word Handler*. There are two additional capabilities you should be aware of in case the need for one of them arises: mirror image margins and folded sheet printing. Mirror image margins are needed when you want to print on both sides of a page which is going to be bound along one edge. As the illustration shows, the margin needs to be wider along the bound edge, which will be the left side of an odd-numbered page and the right side of an even-numbered page.



The margins can be made to alternate automatically by placing an "A" after the left or right margin setting in the format of a document. Regardless of whether the "A" is placed after the left or right margin setting, the values typed in the format will be applied to all odd pages. On even pages, the left and right margins will be reversed.

Alternating margins are useful mainly if you're going to print on both sides of each sheet. There are two ways to go about printing on both sides. You can issue a PRINT command specifying all pages to be printed, and turn the paper over in the printer after each odd page. This would be the simplest method when using a sheet fed printer.

If you have a continuous feed printer, this would probably be cumbersome, especially with a long document. It would be quicker to print all the odd pages first, and then, without tearing apart the pages, turn the whole wad of paper over and print the even pages. This would be true even if it takes more than one PRINT command to specify all the odd or even pages.

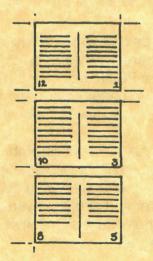
Folded sheet printing also involves running the same sheet of paper through the line printer more than once and inserting a special command into the format of a document.

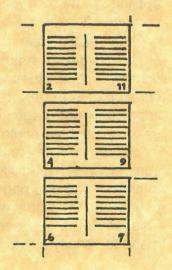
A typical example of folded sheet printing would be an 8½" x 5½" booklet printed on 8½" x 11" paper turned sideways. In the format, the width of the paper is specified as "5.5D" and the length as "8.5."

When this is done, the 11" wide paper is treated as two sheets of 5½" paper. Odd pages are printed on the right half and even pages on the left half. The paper must be reinserted between each pass; moreover, the whole procedure must be repeated for the reverse side.

Getting the pages to come out in the right order when you fold the sheets together is the tricky part here. This is a problem faced by printers all the time, and they call it "imposition." A sheet of pages printed so that they will fall in the correct order when folded is called a "signature."

The proper sequence of page numbers depends on the number of sheets being folded together. The outermost sheet will contain the highest and lowest numbered pages, and the page numbers will converge until the innermost sheet contains a consecutively numbered centerfold. If that's hard to swallow, consider this illustration.





Using the 12-page booklet as an example, the outermost sheet will contain pages 1, 2, 11 and 12. Since page numbers must be printed in ascending order, a person using a sheet fed printer would print page one, turn the paper over and print page two, re-insert it the same way and print page 11, and finally turn it back over and print page 12.

A person using a continuous form printer could adapt a strategy similar to that employed when printing mirror image margins. On the first pass through the printer, he might print pages one, three and five; then he could turn the paper over and print pages two, four and six. The next problem would be to print pages 12, 10 and eight, and later pages 11, nine and seven.

Since page numbers cannot be specified in descending order in a PRINT command, it would be necessary to issue a command to PRINT page 12, a new print command to PRINT page 10, and so on. Is that any easier than moving the paper back through the printer? The answer to that would probably vary with both the particular model of printer being employed as well as the inclinations of the user.

It should be noted that mirror image margins can be used together with folded sheet printing. As with mirror image margins in ordinary two sided printing, the right margin should usually be smaller than the left margin; this results in the pages on each half of the sheet being offset outward from the center.

APPENDIX A MODIFYING THE KEYBOARD FOR SHIFT

Modifying the Apple II keyboard to enable the shift key is easy. First unplug the Apple, turn it over and remove the bottom cover (this may be the hardest part). Remove only the screws holding the bottom cover to the rest of the case. These are all around the edge of the machine, and the points they attach to are visible from above. Take care not to remove the screws holding the motherboard (large printed circuit board) or the power supply.

Examine the underside of the keyboard. You will find that the shift keys each have two contacts.

Solder one end of a wire to the *outer* contact of *either* shift key. Again, be careful — a hot iron or spilled solder in the wrong place can damage the components in your Apple. Put the bottom back on the Apple, then plug the other end of the wire into pin four of the game paddle socket.

If you plan to use the game paddles, you need to buy a 16-pin DIP socket (under 50 cents). Solder the end of the wire to pin four of the DIP socket, plug the DIP socket into the game paddle socket, then plug the game paddle piggy back style into the DIP socket.

Put the top back on your Apple and plug it back in. When you boot the *Word Handler* and begin working on a document, you will discover that the shift key works as described in Part I, Section D.

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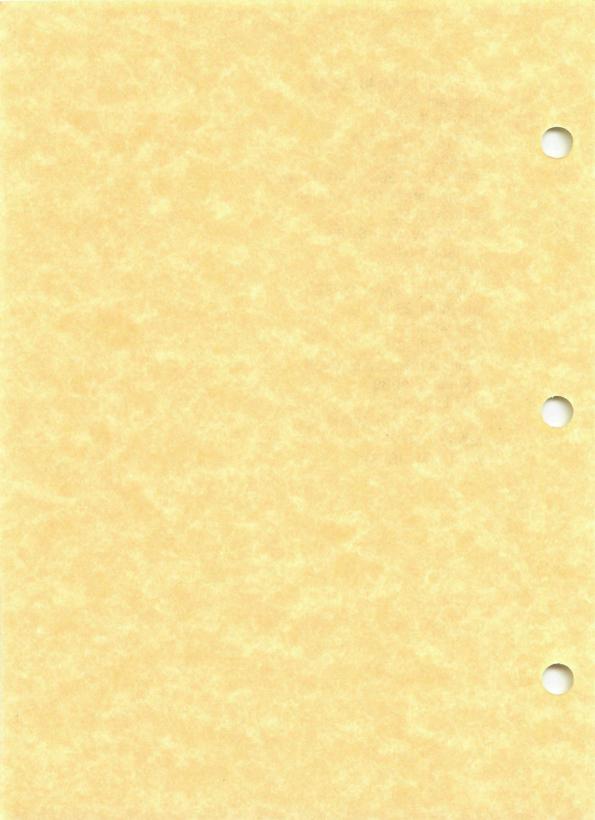
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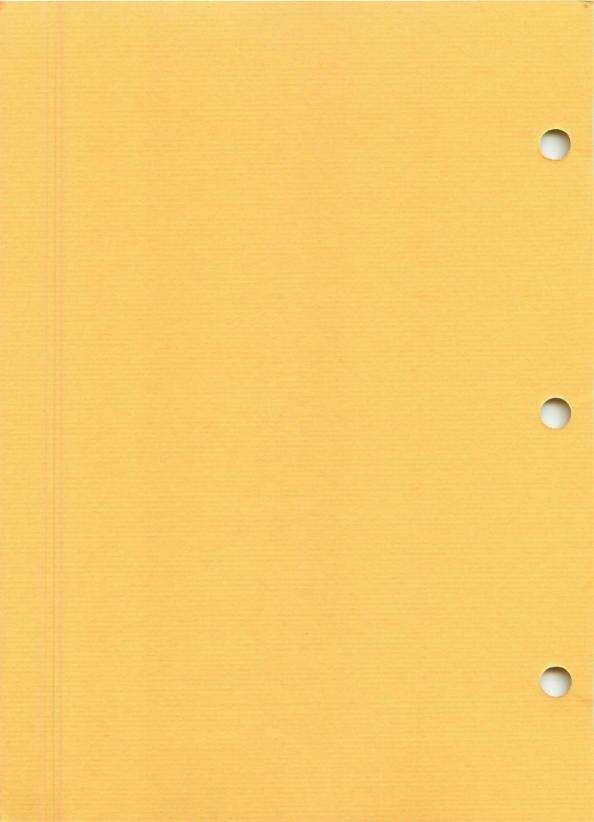
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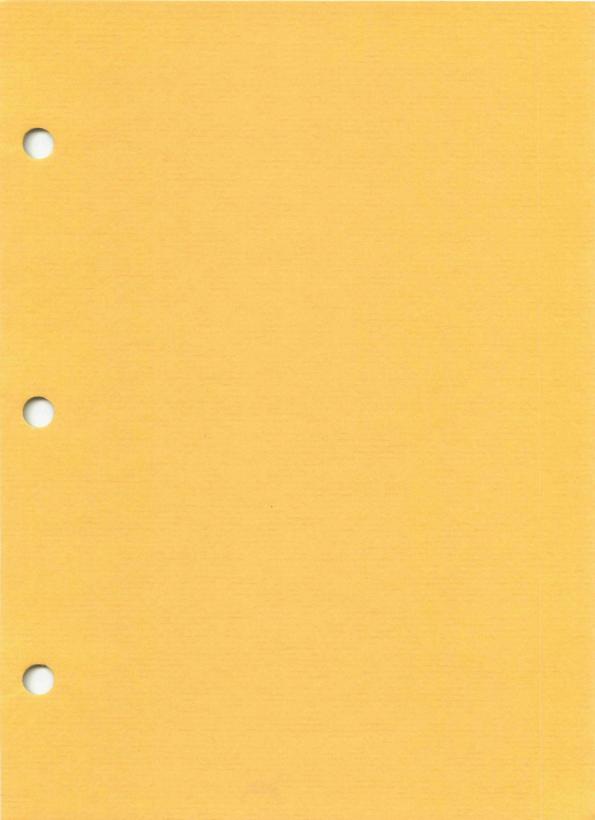
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INTRODUCTION

The Word Handler is engineered to be a word processor of maximum convenience on a minimum Apple II.

The controls are arranged for simplicity and obviousness, and the display format for clarity without sacrificing any detail.

This manual is written to give maximum information in a minimum space. It is made simple without talking down to the reader, and any confusion that arises probably results from trying to read too much into it. In case of such confusion, we suggest you just experiment with the *Word Handler* and see what it does in the confusing case. There is nothing you can do that will unintentionally ruin things.

The aim of this manual is to have you capable of doing useful work with the *Word Handler* in twenty minutes. This is best done by putting the disk into the machine now, and having faith that it will succeed in achieving that aim.

If you have any problems, call us. We are happy to be of assistance, and it will serve us in making things clearer for others.

Silicon Valley Systems

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GETTING STARTED

The Word Handler starts itself when the "Word Handler Diskette" is inserted, label up, into a freshly powered-on Apple-II.

If the "Word Handler Diskette" is new and has never been used before, the Printer Selection will need to be set up for your particular printer. This selection process is invoked by:

pressing space while the diskette is booting.

If this is not done, the Word Handler will use the same printer and slot that was last selected. In any case, it will display something like:

PRI	NTER	SLOT	(1-5):
PRI	NTER	TYPE	(0-B):

	SERIAL	PARALLEL
ASCII(NO BKSP)	0	1
ASCII(W/BKSP)	2	3
QUME/DIABLO/TEC	4	5
EPSON MX-80/100	6	7
EPSON MX-80/EMPH	8	9
IDS-460/560	A	В

USE 66-COLUMN COMPACT FORMAT (Y/N)?

Most Apples are set up with the "Printer Slot" as 1. If it isn't, the person who set up your machine should know if this is the case.

The "Printer Type" depends on what kind of printer the *Word Handler* will be printing on. Each printer uses different codes to do certain operations, and there is also a slight difference between "parallel" and "serial" printers, so find this out also.

The third entry, "USE 66-COLUMN COMPACT FORMAT (Y/N)?" needs to be answered with a "Y" or an "N" (for Yes or No). For most common editing applications, the compact format is much preferred, as it gives you a full line display on the screen. For special applications, where longer lines are needed, the non-compact format should be used, and the lines are broken up on the screen into two or

three parts to allow all the text to be visible, and yet still maintain the text as lines of printing.

After this selection is made, the Word Handler will be in its "idle" state, requesting that you:

Enter name of old or new document: (or INDEX, PRINT, USE DISK #, ERASE, etc.)

At this point you may remove the "Word Handler diskette" and insert another diskette, either an empty "Initialized" (*) diskette, or one with old documents on it.

Do Not change diskettes, except when the "Enter name ..." message is being displayed.

In fact, do not remove your diskette at all, except under this same condition. For one thing, your document may not be completely updated to reflect the latest changes. But more importantly, the next disk inserted into the drive will very likely lose data if the user doesn't remember to "reboot" with this new disk.

So, as a general precaution:

Always use CTRL/E whenever leaving the machine. (It means "END OF EDITING".)

(*) "Initialized" also means "Formatted".

Refer to DOS 3.3 Manual for Information.

DOCUMENT RETRIEVAL AND THE INDEX

When the Word Handler is in its "idle" state, it displays the message:

Enter name of old or new document: (or INDEX, PRINT, USE DISK #, ERASE, etc.)

If you enter "INDEX RETURN " or just a RETURN by itself, the Word Handler will display an "Index" of the disk, showing the names of all documents on it, waiting after each ten names for you to hit space to continue.

If you enter the name (ending with <u>/ RETURN /)</u> of an old document (ie: one that's already on the disk), the *Word Handler* will

bring that document to the screen.

If you enter the name of a new document (ie: one that's not already on the disk), it will give you a chance to start over again, just in case you mistyped the name of an old one. It will do this by displaying the message:

Name not found on disk.

Press 'space' to create a new document with this name, or any other key to begin again:

If you do confirm the creation of a new document by typing a space, an empty document will display on the screen. New text must be "Inserted", using CTRL / I

In either case, it is important that you know how to get back to the "idle" state. This is done with:

CTRL / E / which means "END OF EDITING".

When you're done with the document, this gets it off the screen, and leaves the *Word Handler* idle, and ready for another document. Any of your changes to a document while "editing" are made then-and-there.

Bringing a document to the screen is like getting papers from a filing cabinet and putting them on your desk. Making changes to those papers is the "editing" process, and CTRL/E is like putting them away. There are no hidden copies. You are working with the original of that document. Backup copies may be made, and

we'll get to that later, but these would always have different names from the original.

Document names always appear in upper-case characters, and can be any length up to 30 characters.

If a semicolon appears in the name of a document, all characters from that point on may be omitted when calling for the document. These extra characters appear in the INDEX, and also while the document is being edited, but for convenience, the document may be referred to by the abbreviated name.

For example, if a document is created with the name:

LWE LETTER: TO NATHAN - 6/1/81

it may be called up by typing:

LWE LETTER

or LWE LETTER,

or LWE LETTER; TO N2%(VV:J/

but it will display in the INDEX as it was created.

KEYBOARD & DISPLAY BASICS

The \rightarrow key should be thought of as "GO FORWARD".
(The direction "FORWARD" is toward the end of the document, left to
right, a line at a time as you would read it on a page.)
The key should be thought of as "GO BACK". (The
direction "BACK" is toward the beginning of the document.)
The other controls for the Word Handler are worked by
pressing a letter key while holding down the / CTRL / key.
The combination / CTRL / W / should be thought of as
" A WORD".
Similarly, / CTRL / L / is "A LINE",
and /CTRL/P/ is "A PAGE".
These may be used one after another to give descriptive English
language thoughts.
For example:
/→/ CTRL/W/ CTRL/W/
means "GO FORWARD", "A WORD" and "A WORD".
(In short, go forward two words.)
means "GO BACK", "GO BACK", "GO BACK"
(ie: a character at a time. In other words, go back three characters.)
$/ \rightarrow /$ CTRL/P/ $\leftarrow /$ CTRL/L/
means "GO FORWARD", "A PAGE", then "GO BACK", "A LINE".
(This will go to the beginning of the next page, and then back one line,
onto the last line of the page it started on.)
Any of the text of a document may be brought to the screen
for review and/or modification using the keyboard controls men-
tioned above.

Along with the text being displayed is a blinking rectangle around one and only one of the characters on the screen. This rectangle is called "the Cursor" by computer people and also by display-oriented word processing people. It corresponds to the print mechanism of a typewriter, and is the thing that "goes" to the next line when you hit the

"carriage return" key. This is what the Word Handler moves forward when you use the "go forward" key.

There are also special "carriage return marks" which appear everywhere the RETURN key was used while typing the text. These always appear on the left side of the screen just before the first character of the new line.

The "carriage return marks" are:

- 1 J for single spacing,
- 11/2) for one-and-a-half spacing,
- 2) double spacing, and
- 2½) for two-and-a-half spacing.

There are also:

- ½) for a half space extra, and

The only other thing which appears in the text is a horizontal bar which separates the end of one page from the beginning of the next. This may be thought of as a "page break", and displays on the screen as:

Aside from these, the text contains just the characters that were typed in.

The text is maintained as pages and lines as it will appear when printed.

On the screen, there are two ways that the Word Handler displays lines. In the 66 column format, a line is at most 66 columns long, and displays as it will print on paper.

In the non-compact format, most lines are split into two or three parts, depending on the margins and paper width. These parts appear one below the other, but with a closer spacing than that which separates one line from another. The second and third parts are shifted slightly to the right to make columns come out right. Such

groups of parts should only be thought of as a "line", as the individual parts have no real functional meaning. The control function / CTRL/L/refers to such "lines", which are actually lines of printing.

When typing paragraphs, RETURN is usually not used to end each line. The Word Handler automatically arranges the text into lines that fit within the margins, and the only time RETURN is used is when you really want to continue typing at the beginning of the next line. Otherwise, text is treated as words, and if one is deleted or inserted, words are shifted between lines as necessary. Thus, RETURN is more like "end of paragraph", though it has no relation to punctuation.

So-called "widow" and "orphan" lines are automatically avoided. (A "widow" line would be a single line at the bottom of a page where the remainder of the paragraph didn't fit. Similarly, an "orphan" line would be that last line of a paragraph which didn't fit at the end of the page.) The Word Handler knows when to continue on a new page just as it knows when to continue on a new line, and it does so in such a way that there are never "widow" or "orphan" lines.

MOVING THE CURSOR

The most commonly used function in all word processing applications is *moving the cursor*. Almost everything you do with text needs to be selected by placing the cursor on it. The simple commands, mentioned briefly earlier, are:

moves the cursor forward a character through the text, including "carriage return marks".

moves the cursor back a character through the text, including "carriage return marks".

CTRL / W / moves the cursor "A WORD" through the text in the same direction as previously used.

CTRL/L moves the cursor "A LINE" through the text in the same direction as previously used.

CTRL / P / moves the cursor "<u>A PAGE</u>" through the text in the same direction as previously used.

So, ∠→/ CTRL / W/ CTRL / W/ means "GO FORWARD", "A WORD" and "A WORD".

Since these cursor moving operations are used so much, it is desirable to be very proficient at getting the cursor to a specific character as quickly as possible.

The best "home" position for the hands for moving the cursor quickly is:

Left hand: the pinky holding down the CTRL key the middle finger resting on the W key.

Right hand: the index finger resting on the / L / key. the middle finger resting on the P the ring finger resting on the $\langle \leftarrow \rangle$ the pinky resting on the \rightarrow and This position allows quick access to the combinations that are most used, specifically: CTRL / ← // CTRL / W which goes back a word, CTRL / ← // CTRL / L which goes back a line, CTRL / P CTRL / ← / which goes back a page, CTRL / → //CTRL / W which goes forward a word, CTRL / → // CTRL / L which goes forward a line, CTRL / → //CTRL / P which goes forward a page, It also gives quick access to /RETURN / which means "go forward to the next carriage return mark", and to the / REPT / key, which is useful in combinations such as: REPT / CTRL / L / to go back many lines, REPT / CTRL / W / to go back many words, REPT / CTRL / L / to go fwd many lines, CTRL / → // REPT / CTRL / W/ to go fwd many words, and CTRL / REPT / \rightarrow / to go forward slowly, continuously. The hands are also well placed to allow quick access to: CTRL / I / (characters) / -> / , especially (blanks) \rightarrow /

CTRL / I //RETURN // →

Also, CTRL /D (specifiers of what to delete) →
and CTRL / T/ (word or words) RETURN/
The less common operation / REPT / ← / can be done easily by leaving the "home" position and holding down / ← / and / REPT / with the index and middle fingers, respectively, or with

SEARCHING

There are also "search" operations for locating a particular word or phrase directly. These take the form:

which may be thought of as "FORWARD TIL" and "BACK TIL".

The former will search forward through the document until it finds the word or phrase specified. The latter will search backward. In either case, search is by words (ie: searching for "the" will not find "then").

After the / CTRL / T / finds the first occurrence of what it was looking for, the cursor will stop on the first character of it. In order to find the next occurrence of that same string:

Press / CTRL / T / again.

the thumb and index fingers, respectively.

This will continue searching in the same direction for the next occurrence of the same word or phrase. Continue this until finding the one you want.

These operations may be aborted (either during entry of the word of phrase, or while searching) by pressing:

INSERTING TEXT

The combination /CTRL / I / means "INSERT".

An unmodified Apple II doesn't know about upper and lower case, so the shift key can't be used to distinguish upper and lower case. There are, however, various modifications to the Apple II which enable the shift key to work for specifying upper and lower case. The simplest of these is a wire run from the Apple's keyboard electronics to the game-I/O socket. There are also add-on chips and/or boards which do the same thing which simply plug in. Ask your Apple dealer for his recommendations in this area. The Word Handler should automatically work with or without any of these.

On an unmodified Apple, press ESC followed by any letter to get that upper case letter. Otherwise, letters are normally lower case.

To add text to a document without removing or modifying anything already in the document, the cursor should first be positioned on the character where the new text is to begin. When \(\sum \text{CTRL} / \ \ \ \ \ \) is pressed, everything from that point on will be blanked out on the screen, (it is not gone, though), and new text may be typed in.

As text is typed in, if a word overflows the line it will be moved to the next line and if "Even Justification" was in effect, the finished line will be stretched so it reaches the right margin.

The key <- is treated as "backspace and rub out" until the "INSERT" is finished.

The "INSERT" is terminated and finalized by

Various control-key combinations alter the entry of text during "INSERT".

CTRL / K means "CHANGE CASE". It acts as a "caplock" until it is pressed again.

CTRL / Y / means "UNDERLINE", and is used to start the entry of underlined text, (ends with / CTRL/N /).

/CTRL / B/	means "BOLD", and is used	d to start the entry of
Laboratory of the Control of the Con	"boldfaced" text, (ends with	CTRL/N).

- CTRL / S / means "SUPERSCRIPT", and is used to start the entry of "superscript" text, (ends with / CTRL/N /).
- CTRL / N/ means "NORMAL", and is used to resume entry of "normal" text (ie: not Bold, not Underlined, not Superscripted).
- CTRL / V means "change VERTICAL spacing", and is used to change the vertical spacing of the text being entered. This control can only be issued when on the first line of a paragraph (ie: a line beginning with a "carriage return mark").
- means "change JUSTIFICATION", and is used to change the justification (ie: flip/flopping between "even" and "ragged") of the text being entered. This control can only be issued when on the first line of a paragraph (ie: a line beginning with a "carriage return mark").

There are also three other special things that can be "Inserted", and these are rather different from what the keys mean outside the context of "INSERT":

CTRL / L	means "INSERT AN EXTRA HALF-LINE SPACE",
	and is used for cases like single-spaced para-
	graphs with one-and-one-half spacing between
	them.

CTRL / P means "SKIP TO THE TOP OF THE NEXT PAGE".

CTRL / W means "AN UNBREAKABLE SPACE". This is what

means "AN UNBREAKABLE SPACE". This is what might be used between "Mr." and "Jones" to avoid the possibility of splitting them between two lines.

DELETING TEXT

The key combination CTRL / D means "DELETE".

In its simplest form, it Deletes one character. However, this is a "character" in the Word Handler sense, and can be anything that the cursor may be resting on. Thus, CTRL / D can delete "carriage returns" and the spaces between lines.

It can also be used in context:

 CTRL / D
 CRTL / W
 meaning "DELETE", "A WORD",

 CTRL / D
 CRTL / L
 meaning "DELETE", "A LINE",

 CTRL / D
 CRTL / P
 meaning "DELETE", "A PAGE",

The "DELETE" is not actually finalized until the next control-key is used, (usually \nearrow or $\boxed{\text{CTRL / I}}$), and may be cancelled at any time before that with:

<- |

CHANGING VERTICAL SPACING OR JUSTIFICATION OF TEXT

The key combination CTRL / V means "CHANGE VER-TICAL SPACING". and the key combination CTRL / J means "CHANGE JUSTIFI-CATION".

Both these controls can only be issued when on the first line of a paragraph (ie: a line beginning with a "carriage return mark").

CTRL / V | cycles the vertical spacing between single, one-and-a-half, double, and two-and-a-half for the current paragraph.

CTRL / J / alternates the justification between "even" and "ragged" for the current paragraph.

For changing multiple paragraphs with either of these, each must be done individually. This is most easily done by using the RETURN key to move the cursor to the next "carriage return mark".

PRINTING

The PRINT command is entered instead of a document name when the Word Handler is asking for an "old or new document name".

It requests the name of the document to be printed, and the page numbers to be printed from it. These page numbers are individual numbers and/or ranges of numbers (in ascending order), so the form of the answers is:

Document Name: LWE LETTER which pages: 1,3,5-9

It then says, for each page to be printed:

Position paper and Press "space":

Pressing 'space' will cause one page to print, after which it will pause with the same message, allowing new paper to be positioned.

Pressing "C" will cause the remainder of the document to print, assuming "Continuous" feed paper.

Pressing " / > / " will abort printing either while printing or while paused between pages.

CENTERING TEXT

The key combination \(\text{CTRL / X} \) means "\(\text{CENTER} \)".

It will center the line that the cursor is on. If the line is in the midst of a paragraph and does not begin with a "carriage return mark", or it is not followed by a "carriage return mark" and is thus too long to be centered, the *Word Handler* "beep" indicating that it cannot do the centering operation.

SETTING AND USING TABS

The key combination / CTRL / Q / is used for both "TAB SET" and "TAB CLEAR".

The "tab line display" shows a small mark at the column where the tab has been set. When a tab is already set at a particular column, using CTRL/Q will clear the tab stop at that column, otherwise it will set it.

Tabs are used during "Insert" either for setting up columns or for paragraph indentation. Once inserted into the text, the indentation is totally equivalent to spaces.

The way to use tabs during inserting depends on whether or not your Apple has a lower-case keyboard modification. If it does not have any such modification, a tab is called for with __ESC ______. If it does have such a modification, then tab is just a single __ESC _____.

MERGING TEXT FROM OTHER DOCUMENTS

The key combination / CTRL / G / means "GET TEXT FROM SELECTED DOCUMENT".

It requests the entry of a document name and/or a list of line numbers and/or ranges of line numbers, all separated by commas. A typical sequence might be:

LWE LETTER, 15-30,2-5,31,32,8-15

The way this might be typical is that it is being used to select paragraphs and sections in the order which they are to appear when inserted.

There is a slight limitation on the documents that can be used for this in that documents whose names begin with a numeric character will be confused with line numbers.

If a "secondary" disk drive has been defined, then the named document will be assumed to be on that secondary drive.

If the document name is omitted, the last one selected will be used.

Lines are copied from the selected document as they were when that document was last edited. Each line of a multiple lined paragraph counts as a line, as does each "carriage return mark", including:

$$\frac{1}{2}$$
 and

A document that is intended to be a text source for / CTRL/G/should be reviewed to its end, or printed after edits of it that cause lines to shift. This includes the changing of its format.

COPYING AND MOVING TEXT

The key combination / CTRL / C / means "COPY". It copies one character into a temporary area on the diskette for insertion elsewhere at some later time. It works similarly to "DELETE", in that it highlights the text being copied, and the operation is not finalized until another control-operation or \rightarrow is called for. It also can be cancelled with $/ \leftarrow /$. It may also be used in context with / CTRL/W/, / CTRL/ L / , and / CTRL / P / , to "COPY" "A WORD", "A LINE", or "A PAGE". After the "COPY" has been ended with $/ \rightarrow /$, for example, at some later time, the control-key sequence: CTRL/I/ CTRL/C/ would "INSERT THE COPY".

Copied text may be accumulated in the temporary area, limited only by the storage capacity of the diskette. Copies after the first are appended one after another.

A combined form of "COPY" is especially made for moving text. This is:

CTRL / D / which means "COPY AND /CTRL/C/ DELETE".

It may be used in any of several forms such as:

"DELETE, COPY, LINE, LINE, LINE." "COPY, DELETE, LINE, LINE, LINE," "COPY , LINE , LINE , LINE , DELETE ;" "DELETE, LINE, LINE, LINE, COPY,"

or any other form which includes "COPY", "DELETE", and the specifiers of how much to delete, as long as they are all included before the confirming $/ \rightarrow /$ or other terminating operation.

CHANGING PAGE FORMATS

The key combination / CTRL / F / means "FORMAT".

This operation brings to the screen the current definitions used for the document's page format. Once this page format information is brought to the screen, it must be completed before you can go on. Hit AETURN for any entries you do not wish to change, or type over the old entries in order to change them.

If any entry is invalid or impossible, a "beep" will alert you, and the Word Handler will require you to reenter the items from the point where it feels the problem originated. If an item is entered incorrectly, but is not invalid, you must continue through the format to its end, and the use \(\bigcirc CTRL / F \) again, correcting the error next time.

The page format defaults to the following values:

PAPER WIDTH: 8.5
PAPER LENGTH: 11

LEFT MARGIN: 1.0 RIGHT MARGIN: 0.9

TOP MARGIN: 0.8 BOTTOM MARGIN: 1.0

PITCH (10 or 12): 10 LINES/INCH (6 or 8): 6

FIRST PAGE NUMBER: 1

HEADER DIST FROM TOP: 0.4
FOOTER DIST FROM BOT: 0.4

ODD PAGE HEADER ("#"= PG NUM):

ODD PAGE FOOTER ("#"= PG NUM):

#

EVEN PAGE HEADER ("#"= PG NUM):

EVEN PAGE FOOTER ("#"= PG NUM):

"FIRST PAGE NUMBER" signifies the page number you want this document to begin with. This is useful when working with a document that cannot fit on a single diskette, starting the second part with the page number after the last page number of the first part. It is also useful when retyping part of a document that only existed on paper.

"HEADER DIST FROM TOP" is the distance between the top edge of the page and any "header" text which is to appear *in* the top margin. This text is also what is used to specify the position of page numbers, if included.

"FOOTER DIST FROM BOT" is the corresponding distance between the bottom edge of the page and any "footer" text which is to appear *in* the bottom margin.

"ODD PAGE HEADER ("#"= PG NUM)" signifies the text that is to appear in the top margin of odd numbered pages. If the page number is to appear at the top of the page, then include a "number sign" at the position in this text that the page number is to appear. If this text needs to be other than centered, then include as many spaces from the left edge of the page as necessary. If no spaces occur before the first printable character of this header, it will be centered between the margins.

"ODD PAGE FOOTER ("#"PG NUM)" is correspondingly any text that is to appear in the bottom margin. Similar considerations for page numbering and centering apply.

"EVEN PAGE HEADER" and "EVEN PAGE FOOTER" are only necessary when headers and footers are to be different on odd and even pages. It is not uncommon to have page numbers in the right hand corner for odd numbered pages, and left hand corner for even ones. In that case, the odd page Header or Footer should be something like:

<approximately 75 - 80 blanks > -# -

and the even page Header or Footer:

-#-

If even numbered pages are to have the same Headers or Footers as the odd pages, then the entries for the even ones may be omitted. However, a "blank" typed for either of these is *not* the same as "omitted". A "blank" for the header or footer signifies that the text for that Header of Footer is to be blank. This occurrence is also not totally uncommon, and is used in cases where a title appears only on the left hand pages. In order to change an entry that has text into one that is "omitted", type blank, RETURN.

If no page numbers are to appear on the document, then any headers or footers having number signs ("#") should be changed to blank.

GLOBAL REPLACE

The key combination \(\sum \text{CTRL/R} \) means "\(\text{REPLACE} \)"

It requests both a word or words to be replaced, and what to replace it with. It then searches forward through the document, starting at the original position of the cursor, and stops at the first occurrence of the specified string.

If you wish this occurrence to be replaced, press:

CTRL / R

If you do not wish this occurrence to be replaced, press:

RETURN /

The next occurrence will be found, and this same choice of replacing or not should be made. Typing anything other than these ends the replacing operation.

FORM FILL-INS

The FILL-IN command is entered instead of a document name when the *Word Handler* is asking for an "old or new document name". It takes an existing document and treats it as a "form". It first displays:

Document Name: New Name:

and the operator specifies the same of a "form" document, and a name for a new "result" document which has specific fields replaced.

The fields to be replaced are of the form:

<word or words>

For each unique one of these, a replacement value for that specific field is requested. If the "form" document contains more than one of a specific field, the same value will be used for each occurrence.

The fill-in procedure continues to ask for such entries until they have all been specified, scrolling-up the old ones as they are filled in. (for example):

When all the entries have been specified, the "result" document is left on the screen for review and/or touch ups.

The capitalization of the entries of the fill-in is determined by two things. If the first character after the "<" is alphabetic, then the case of that character is used for the replacement. If it is non-alphabetic, then the replacement is done without any checking of case.

These fields are found and replaced as if they are words. If they occur in the middle of a sentence, the same spacing before and after the replacement will be the same as it was for the "<...>" field. If the "<...>" field occurred in a table format, then the result will maintain that same format based on only one consideration. If the "<...>" field

occurred on a line where there was a sequence of three or more blanks, the replacement will add or subtract blanks that what follows winds up in the same column. If the new value is bigger than the space available, it is replaced anyway, and two spaces are kept each place spaces were absorbed.

Example:

When the "form" document:

Forced capital <Name>. Forced-small <name>. Forced-capital <Job Title>. Forced-smallj<job title>.

Unforced < City> Unforced < city>
This is an example of the replacement of <pri>cof item> in a sentence case.

<price of item>.
<price of item> per unit.

This is in a table. <price of item>.

is filled-in with:

<Name>:
Lenny

<Job Title>:
programmer

< City>: Redwood City

<price of item>:
\$189.00

the "result" document is:

Forced-capital Lenny. Forced-small lenny.
Forced-capital Programmer. Forced-small programmer.
Unforced Redwood City. Unforced Redwood City.
This is an example of the replacement of \$189.00 in a sentence case.

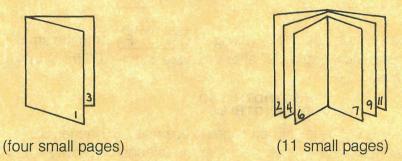
\$189.00

\$189.00 per unit.

This is in a table. \$189.00.

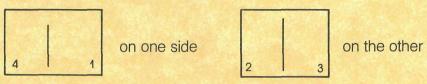
FOLDED SHEET PRINTING

The Word Handler can be set up to allow folded paper printout

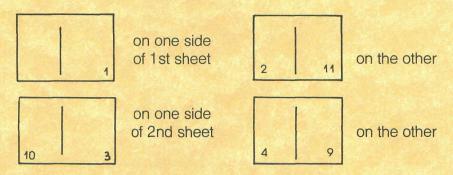


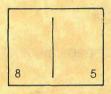
This requires:

- 1) Knowing how many sheets the entire document takes before printing it. Note that one folded sheet of paper, 8.5×11 ", can accomodate four small 5.5×8.5 " pages, printing on both sides.
- 2) Placing each sheet into the printer multiple times in the appropriate order, with the proper side being printed, and the proper edge up. Note that the first example shown needs:

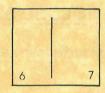


The second example shown needs:





on one side of 3rd sheet



on the other

3) Setting the paper size (using \(\subseteq \text{CTRL / F} \)) to the small page size and including a "D" after the page width, ("D" for Double). For example:

PAGE WIDTH: 5.5D PAPER LENGTH: 8.5

This will cause all odd pages to be printed 5.5 inches offset to the right, thus placing even pages in the leftmost 5.5 inches, and odd pages in the rightmost 5.5 inches.

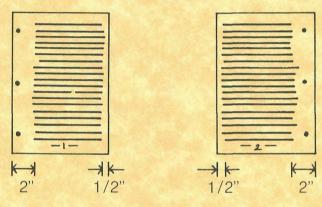
Remember, each "page" is printed as if on smaller paper. The only special action the *Word Handler* will take is to print on the left or on the right. Each sheet must be printed either once or twice per side.

MIRROR IMAGE MARGINS

When doing two sided printing, it is occasionally desirable to have wider margins at the binding side of the pages (either for looseleaf holes, stapled bindings, etc.)

This is provided for by including an "A" after either the left margin or right margin settings. ("A" for Alternating.) This will cause the margin sizes to be alternated for printing odd and even pages.

eg: LEFT MARGIN: 2A
RIGHT MARGIN: 0.5



This feature may be used in conjunction with folded sheet printing to give a very professional looking stapled booklet.

ERASING, RENAMING & MAKING BACKUP COPIES OF DOCUMENTS

The commands "ERASE", "RENAME", and "BACKUP" are each entered instead of a document name when the *Word Handler* is asking for an "old or new document name".

They each request the name of the document, and both "RENAME", and "BACKUP" also request a new name.

The document for each of these is assumed to be on the "primary" disk drive, and in the case of "BACKUP", the backup copy will be placed on the "secondary" disk drive (if one is defined).

USING MORE THAN ONE DISK

The command "USE DISK #" is provided for using other disk drives, and for doing certain disk-to-disk operations. It is entered in place of a document name when the *Word Handler* is asking for an "old or new document name".

Unless this command is used to specify otherwise, the *Word Handler* does all its operations on the same disk drive it was "booted" from.

Disk drives are referred to by numbers from 1 to 8, and the one that was "booted" from is called "1".

The drive that is used for all file operations may be changed by using a "USE DISK" command specifying the number of the drive to use. For example:

USE DISK 2

specifies that all operations are to use drive 2.

It is also possible to define a "secondary" disk drive which is used for operations that refer to a second drive.

The command, for example:

USE DISK 3/4

defines the "primary" to be disk drive 3 and the "secondary" to be disk drive 4.

All operations refer to the "primary" drive, except:

CTRL/G/ gets its lines from the selected document on the "secondary" drive.

BACKUP saves the backup copy on the "secondary" drive.

FILL-IN gets the "form" document from the "secondary" drive and creates the new "result" document on the "primary" drive.

CONTROL KEY SUMMARY

→ / ← / CTRL / B / CTRL / C / CTRL / D / CTRL / E / CTRL / F / CTRL / G / CTRL	go forward go back BOLD (only effective during "Insert") COPY DELETE END of edit FORMAT change GET from selected document
CTRL / J / CTRL / K / CTRL / L / CTRL / N /	INSERT JUSTIFY (flip/flop between Even and Ragged) CASE change LINE NORMAL (cancels BOLD, SUPER, and UNDERLINE in Insert, only UNDERLINE elsewhere)
CTRL / P / CTRL / Q / CTRL / R / CTRL / S / CTRL / T / CTRL / V / CTRL / V / CTRL / X / CTRL / X / CTRL / Y / ESC /	PAGE TAB SET/TAB CLR (flip/flop) REPLACE (ie: Global) SUPERSCRIPT (only effective during 'Insert') TIL (ie: search back or forward for phrase) VERTICAL spacing change WORD CENTER UNDERLINE Next letter entered as upper case (on unmodified Apple)
ESC / ESC /	Tab (on unmodified Apple) Tab (on Apple with shift key enabled)

WHOLE DOCUMENT COMMANDS

(Entered instead of a document name)

INDEX displays a list of all documents on "primary" disk

drive.

PRINT prints pages of a specified document. Asks for

document name and page numbers.

USE DISK 2 causes all commands and controls to use disk-

drive 2.

USE DISK 1/2 causes disk drive 1 to be "primary", and disk drive

2 to be "secondary".

ERASE erases a document from the disk.

RENAME gives a new name to a document.

BACKUP makes a backup copy of a document.

FILL-IN makes a new document from a "form" document

while accepting "fill-ins" for all data items of the

form:

< things like this >

(RENAME, BACKUP, FILL-IN are the commands not specifically spelled out in the "Enter name of old or new document" message, but are referred to as "etc.")

PRIMARY/SECONDARY DISK USAGE

Retrieval document is retrieved from the "primary".

Get lines are "gotten" from the "secondary".

BACKUP backup copy is stored on the "secondary".

FILL-IN the "form" document is gotten from the "secon-

dary" and the result is saved on the "primary".

On booting the Word Handler, drive 1 is both the "primary" and the "secondary" disk.

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